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Fruit Markets in Eastern Asia

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FRUIT MARKETS IN EASTERN ASIA^{1, 2}

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INTRODUCTORY

The post-war agricultural depression in the staple crops brought many far-reaching effects. It not only affected the farmers growing those particular crops which declined in purchasing power but also had other secondary influences upon far-distant farmers growing other commodities.

After the world war, farmers in California who were growing the staple crops such as wheat, barley, corn, beans, and grain sorghums, felt the immediate effect of the low national prices for these crops. Farmers who were growing fruits and other California specialties did not, however, experience such declining prices. Peaches, prunes, plums, pears, grapes, and figs, remained high in price for some years. Many persons expected these high prices to continue indefinitely.

Not unnaturally, farmers growing the low-priced staple crops decreased their acreages of these commodities and, where facilities were at hand, hastened to plant those fruit crops which were then at a higher price level. The facilities needed were, first, land suitable for the crop, second, water for its irrigation, and third, finance to carry the slowly maturing orchard into bearing. In general, money was easily available from banks to farmers desiring to plant these crops. Bankers, like other persons, expected our specialty fruits to continue at a high price level.

Under these conditions the acreage of field crops in California steadily and rapidly declined (see table 1). Between 1920 and 1925 the percentage decrease ranged from 13 per cent for hay to over 40 per cent for corn, wheat, grain sorghums, and beans. The field crops of California declined about one and a half million acres, or about 26 per cent. In the meanwhile, there was a rapid and at times almost

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² This investigation has been done in cooperation with the U. S. Department of Commerce.

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frantic effort to increase the acreage of fruit crops and vegetables. At that period it was a common expression to designate the planting of an orchard as "developing the ranch." Civic organizations, urging the planting of fruit crops, discussed it as "developing the country." No one seemed to doubt that the way toward prosperity for the state as well as for individuals was through the planting of large acreages of the high priced fruit crops.

TABLE 1

PERCENTAGE CHANGE IN THE ACREAGE OF CERTAIN FIELD CROPS IN CALIFORNIA
BETWEEN 1919-1920 AND 1924-1925

Crop	Per cent
Wheat	— 46
Grain sorghums	— 46
Corn	— 43
Beans	— 42
Rice	— 39
Potatoes	— 35
Sugar beets	— 30
Oats	— 22
Barley	— 19
Hay (tame)	— 13
Field crops	— 26

From Calif. Agr. Ext. Cir. 18. Data from California Cooperative Crop Reporting Service.

Indeed, there was some justification for this point of view. California lands are generally held at high prices. They cannot be expected to compete on even terms with lower-priced lands all over the nation which grow the same staple crops. On the other hand, due to the climate and soils of the state, it has been possible to plant many fruits which cannot be grown elsewhere within the continental United States, and also to obtain high yields from them, thus maintaining a monopoly production in America and competing successfully with similar regions elsewhere in the world. The general philosophy that California should grow those crops for which it is primarily and solely adapted, seemed an excellent basis for agricultural procedure. This sentiment was expanded to warrant an immediate and large planting by those who looked only at immediate production and prices and who did not seek to forecast the future.

Between 1920 and 1925 (see table 2), California made material increases in its acreages of various fruits. Some of these increases were very large. Figs increased 156 per cent, grapefruit 103 per cent, almonds 82 per cent, grapes 71 per cent, apricots 55 per cent, pears 48 per cent, peaches 46 per cent, and so on. The total fruit acreage of the state increased 43 per cent, or an increase of 573,000 acres.

No immediate effect of these increased plantings was felt either in volume of production or in price. Tree fruits and vines come but slowly into bearing. The volume of fruit to be marketed was not immediately increased. Thus there was no check through increased volume or decreased prices upon those who saw the future prosperity of California based upon deciduous fruits at high prices. Land values continued to rise. The per acre value of farm real estate increased 9.2 per cent between 1920 and 1925.

TABLE 2
PERCENTAGE CHANGE IN TOTAL ACREAGE OF CALIFORNIA FRUITS
BETWEEN 1920 AND 1925

Crops	Per cent	Crops	Per cent
Figs	+156	Cherries	+ 19
Grapefruit	+103	Prunes	+ 14
Almonds	+ 82	Oranges	+ 7
Apricots	+ 55	Lemons	— 5
Pears	+ 48		
Peaches	+ 46	Table grapes	+130
Plums	+ 46	Raisin grapes	+ 66
Walnuts	+ 33	Juice grapes	+ 46
Olives	+ 22	Total grapes	+ 71
Grand total			+ 43

From Calif. Agr. Ext. Cir. 18. Data from California Cooperative Crop Reporting Service.

In many of these fruit crops California has complete, or at least partial monopoly (see table 3). For example, California grows all the commercial apricots in the United States; fresh, canned, and dried. It grows all of the raisins, and 84 per cent of the fresh grapes. It produces practically all of the canned and dried peaches in America; all of the dried pears, 89 per cent of the dried prunes, and 56 per cent of the canned pears. Any material increase in the California acreage of these commodities represents an almost equal increase in the national acreage and therefore of the national production. In most of the staple crops California grows but a small percentage of the product. Even a relatively large increase in the acreage of staple crops would have made but a small fractional increase in the national production and would have had little or no effect upon national prices.

By 1927-1928 the increased plantings of California fruits were manifesting their production through the increased volume on the markets (see table 4). The California pack of canned fruit increased 48 per cent over that in the years of 1919-1920. The dried fruits had similarly increased by 58 per cent. The inter-state shipments of fresh fruits had increased by the enormous gain of 182 per cent.

TABLE 3
 PRODUCTION OF CERTAIN FRUITS, UNITED STATES AND CALIFORNIA
 AVERAGE 1924-1928
 (Fresh Equivalent)

Fruit	United States 1,000 lb.	California 1,000 lb.	Per cent of U.S. in Calif. Per cent
<i>Apples</i>			
Total	8,111,016	412,488	5.1
Fresh	7,447,778	254,008	3.4
Canned	281,478	.....	....
Dried	381,760	156,480	41.0
<i>Apricots</i>			
Total	340,400	340,400	100.0
Fresh	32,582	32,582	100.0
Canned	88,238	88,238	100.0
Dried	219,580	219,580	100.0
<i>Cherries</i>			
Total	271,880	31,200	11.5
Fresh	209,259	20,266	9.7
Canned	62,621	10,934	17.5
Dried .....	.....	.....	.....
<i>Grapes</i>			
Total	4,563,938	4,133,200	90.6
Fresh	2,603,118	2,172,380	83.5
Canned	4,020	4,020	100.0
Dried	1,956,800	1,956,800	100.0
<i>Peaches</i>			
Total	2,649,792	950,045	35.9
Fresh	1,903,553	205,873	10.8
Canned	493,459	491,392	99.6
Dried	252,780	252,780	100.0
<i>Pears</i>			
Total	1,031,232	370,618	35.9
Fresh	816,436	231,575	28.4
Canned	170,928	95,175	55.7
Dried	43,868	43,868	100.0
<i>Prunes</i>	986,100	880,300	89.3
<i>Oranges</i>	2,772,955	1,850,408	66.7
<i>Grapefruit</i>	731,019	44,904	6.1
<i>Lemons</i>	537,720	537,720	100.0

Data from Shear, S. W. Fruit Production, Consumption and Utilization in the United States. Calif. Agr. Exp. Sta. Bul. (in preparation).

TABLE 4
DECIDUOUS FRUIT PRODUCTION, CALIFORNIA
Average 1919-1920 and 1927-1928

	Average 1919-1920	Average 1927-1928	Per cent Increase
Canned—Cases	12,346,000	18,301,000	+ 48
Dried—Tons	364,000	575,000	+ 58
Interstate Shipments—Cars	32,500	91,700	+182

Meanwhile, there had been some increase in the per capita consumption of these commodities in the United States. In part this had come about through the relatively high prosperity of the country and the greater purchasing power of many families due to better wages. In part it resulted from widespread agitation for the increased consumption of fruits and vegetables as a desirable contribution to the diet. The doctrine of beneficial vitamins in certain foodstuffs, notably fruits and vegetables, and the alkaline ash residue of some of these foods in the human system, were widely advertised by physicians, dietitians, and those who had the commodity to sell. Unfortunately, however, this increased demand was not sufficiently rapid to keep pace with the increased production of these fruits under the stimulus of post-war prices. The consuming public would undoubtedly have been able and willing to purchase a somewhat larger volume of California fruits even at the price level prevalent immediately after the war. They were not, however, willing to consume the large amounts brought upon the market at the then prevailing prices.

TABLE 5
PERCENTAGE CHANGE IN PRICES OF CALIFORNIA FRUITS
BETWEEN 1921-1922 AND 1926-1927

Crops	Per cent	Crops	Per cent
Figs	— 44	Walnuts	+ 10
Prunes	— 37	Cherries	+ 18
Plums	— 33	Oranges	+ 27
Peaches	— 30		
Olives	— 26	Table grapes	— 64
Pears	— 20	Juice grapes	— 39
Apricots	—	Raisin grapes	— 33
Almonds	+ 2		

From Calif. Agr. Ext. Cir. 18. Data from California Cooperative Crop Reporting Service.

Consequently, prices fell for most California fruits (see table 5). Between 1921-1922 and 1926-1927 the price of peaches declined 30 per cent, of plums 33 per cent, of prunes 37 per cent, and of figs 44 per cent. Farmers who had planted these crops on high-priced lands and at high wages found themselves unable to market the crops at the

expected prices. Many could not make a profit upon the investment already involved. Some could not make cost of production. Furthermore, in a number of these crops the peak of production had not yet been reached and would not be reached for years to come. A steadily increasing volume was to be expected. For example, Dr. H. R. Wellman, as shown in figure 1, estimates that the probable cling peach production of California will not reach its peak of normal production until about 1932 or 1933, and that the normal crop will not again be as

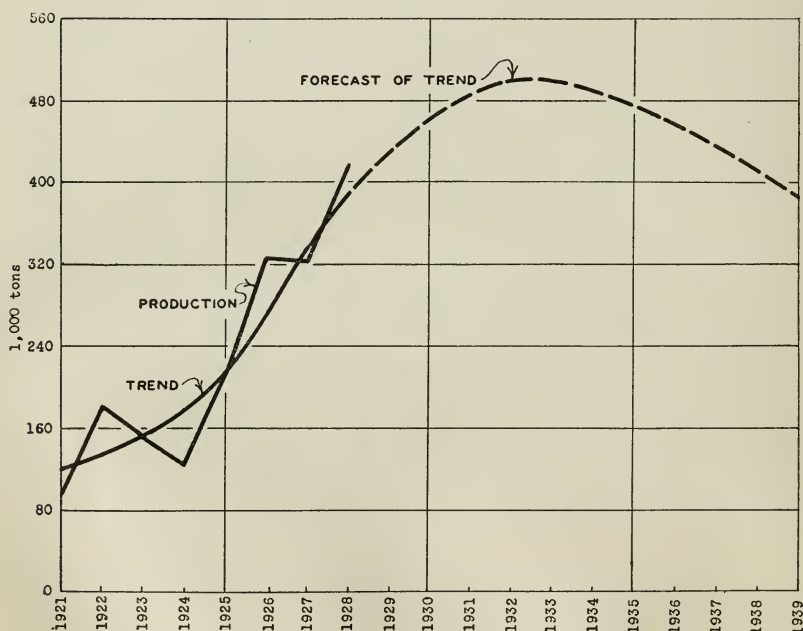


Fig. 1.—Clingstone Peaches: Forecast of Trend of Production.

small as that of 1928 until about the year 1938. This estimate, of course, is made upon the assumption that peach orchards will not be destroyed until they reach the normal old-age limit of twenty years and that no large area of bearing orchards will be unduly neglected. The estimate, however, is made on the further assumption that no additional acreages of cling peaches will be planted in the interim. Of course there will be abnormal years, as that of 1929, when through a frost or other hazard, the production will greatly decline. The estimate mentioned above only involves production in normal years.

In many ways, an over-expansion in tree and vine crops is more serious than that in annual crops such as wheat, corn, or potatoes.

We have already called attention to the fact that since the production from tree crops does not increase until several years after they are planted, there is thus no quick check on plantings caused by lowered prices. Farmers may continue to plant under the assumption that the present production and price level will continue. Furthermore, any readjustment of fruit acreage occurs but slowly after a price decline, since these fruits are perennial crops which require a large investment to bring them into bearing. Thousands of farmers have been keeping records of their costs of production in cooperation with the Agricultural Extension Service of the University of California. L. W. Fluharty, in charge of this work, gives the following general estimates for the costs per acre of bringing orchards into bearing, not including the cost of the land itself: peaches \$250; pears \$325; apricots \$250; prunes \$260; vineyards \$200. These figures vary of course from county to county and from man to man. They are, nevertheless, general averages and give some indication of the investment which must be sacrificed if a fruit orchard is destroyed before the investment is amortized during the bearing years. Therefore calamitously low fruit prices are not likely to be immediately rectified by decreases in production. Low prices in fruit crops usually continue over extended periods because of the difficulty of rapid adjustment to new conditions and because of unwillingness to sacrifice the large investment already made in planting and maturing an orchard.

By 1929 in the great deciduous fruit belts of the state calamitously low prices for fruit crops had brought ruin to some, jeopardy to many, and concern to all. Still larger crops were expected in the immediate future. They might sell for still lower prices.

The whole problem as presented above has been much discussed among those interested in the financial welfare of California. The situation is so far-reaching that it not only confronts the farmers who are directly producing these crops, but also the businessmen and tradesmen who secondarily depend upon them, and even the transportation companies and other public utilities who indirectly derive a large portion of their revenue from the fertile lands of California.

Three possible remedies have been advanced. The first of these is to destroy a sufficient acreage of the California fruits which are now over-produced to readjust supply to demand. We have already mentioned some of the difficulties attendant upon such a proceeding. Although some orchards may be pulled out under the immediate depression of low prices, no large or material acreage is likely to be so affected until the financial situation has become extremely acute.

Even though bankrupt farmers leave the land to seek a living elsewhere, the farm usually passes into the ownership of financial institutions or of private capital. Thus, the vines and trees continue to produce. The net result is not likely to affect seriously the volume of production.

The second remedy proposed is to decrease costs of production in order to meet decreased prices. This remedy is and has been feasible within certain limits. One of the greatest factors lying within the power of individual farmers is to decrease their costs of production by improved methods. The Agricultural Extension Service of the University of California has been committed to this program and has been forwarding it for many years. Nevertheless, any decrease in costs reaches its natural limitations. These limitations are those of the land and of the man himself. It is not possible to decrease costs indefinitely.

Therefore, many persons and organizations in the State of California have turned to the third remedy, which is to increase demand sufficiently to materially affect prices. These persons rightly recognize that these crops are grown for human food and that if prices are to be increased, there either must be found more persons to eat these commodities or those already consuming the crops must by some means be induced to eat more of them. The increase of trade demand has therefore been a fertile subject for discussion by all those interested in the agricultural problems of California.

THE QUEST FOR LARGER MARKETS

Undoubtedly something can be done to increase consumption in the United States. Per-capita consumption has been slowly increasing in the past. Certain commodity marketing associations have materially increased the consumption of their particular food product by means of widespread and expensive advertising campaigns throughout the nation. It is recognized, however, that because of the limitations of the human appetite, American consumption of California fruits cannot be increased indefinitely. Indeed, there are indications that some of the present widespread advertising campaigns within the nation are bearing less return than formerly, owing to the fact that they are necessarily competitive and offset one another.

The consumption of foodstuffs is relatively inelastic in America. It might be possible to educate the American public to own two or three automobiles or to advertise that seven razors, one for each day

in the week, were necessary for respectability. It is impossible, however, to teach the public to eat two or three times as much food. Under lowered prices, demand increases somewhat, partly through increased consumption but more largely through waste. Real increased demands in foodstuffs are, however, difficult to create. The consumption of one food is likely to be at the expense of another. Because of their bulkiness, fruits can occupy but a relatively small place in the American diet. It would be impossible to teach the American public to eat several times as much fruit, even at lower prices. Increased production requires increased consumers outside of America.

Attention has therefore been directed beyond the bounds of America to find a consuming population which could be induced, through trade enterprise or other methods, to purchase California fruits and fruit products, thus creating an additional demand which might offset the increased production.

Europe, which has an economic level and popular food demand somewhat like our own, has for many years been a large consumer of California fruits and their products. As a part of the European recovery, that continent may be expected to consume more of our canned, dried, and fresh fruits. However, many persons believe that neither American nor European demands can be sufficiently increased to solve the problem for rural California. They have insisted that it would require not only the increased demands of America and Europe, but also an increased consumption in the Far East to offset the rising fruit production of California.

Anyone looking at a population map of the world (figure 2) must be struck with the enormous population of the countries of the Far East, in which half of the world's inhabitants are congregated. Many persons and many organizations have therefore voiced the theory that beyond the Pacific lie at hand markets and market opportunities which should be more fully realized. These markets are relatively close to the Pacific seaboard, from which many coast ports and large cities of the Orient can be reached without trans-shipment. The question has therefore risen whether, somewhere within the bounds of the Far East, there are not places and nations which would consume more of our products if these were easily available to them in the form and of the kind desired (figure 3).

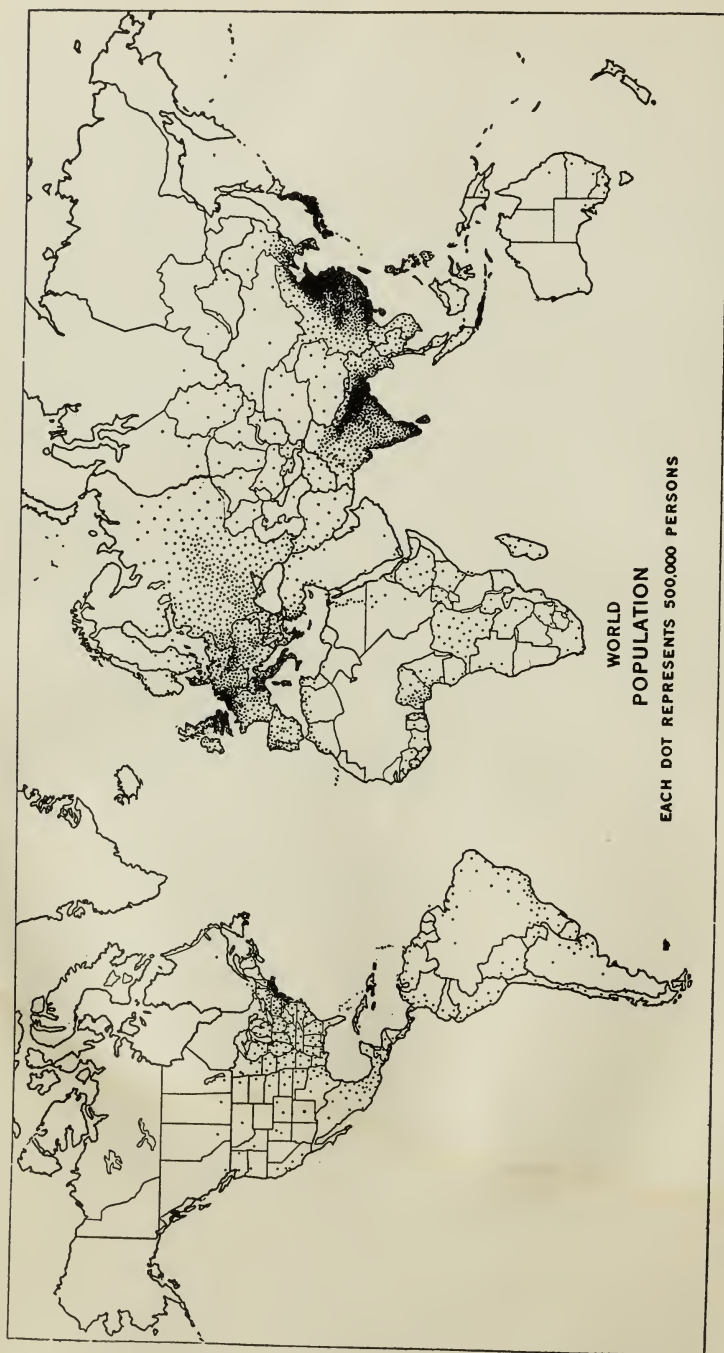


Fig. 2.—Population of the World. From "Geography of the World's Agriculture," U. S. Dept. of Agriculture.

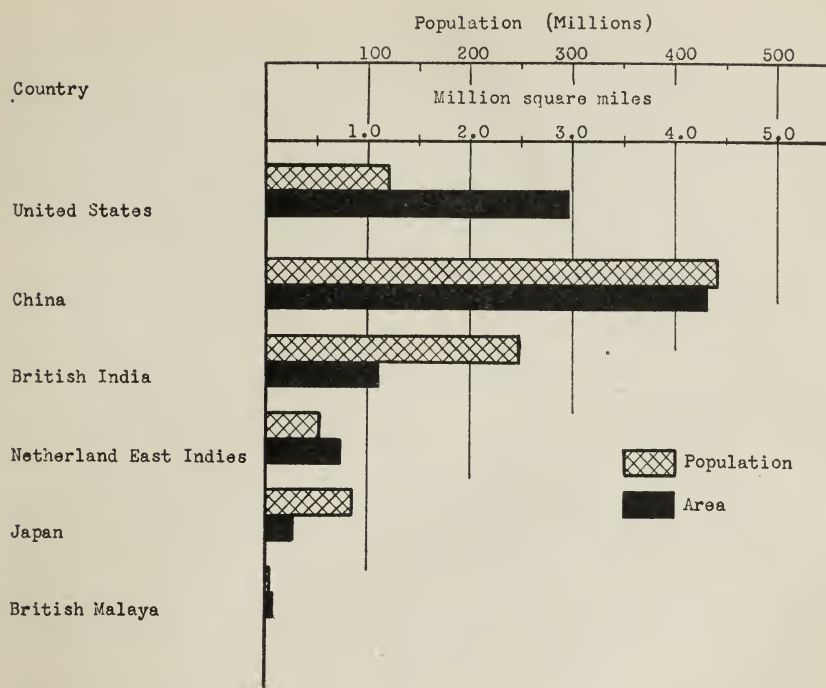


Fig. 3.—Area and Population of Certain Countries. Data from U.S.D.C. Yearbook of Commerce, 1928, 2:678-9, 1928.

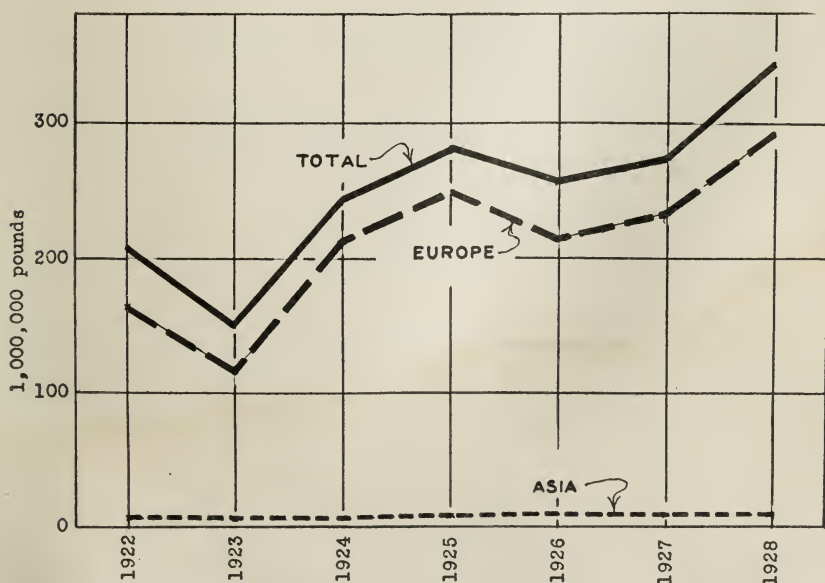


Fig. 4.—United States Exports of Canned Fruits to Asia, Europe and All Countries, 1922-1928.

PRESENT EXPORTS TO ASIA

In the past, Asia has been but a small factor in our export fruit markets (see figures 4, 5, and 6). In general, our total exports are determined by Europe, contrasted with which, Asia has been a very minor influence (see table 6). This is best realized when our exports are calculated in terms of percentage of the crop produced in America

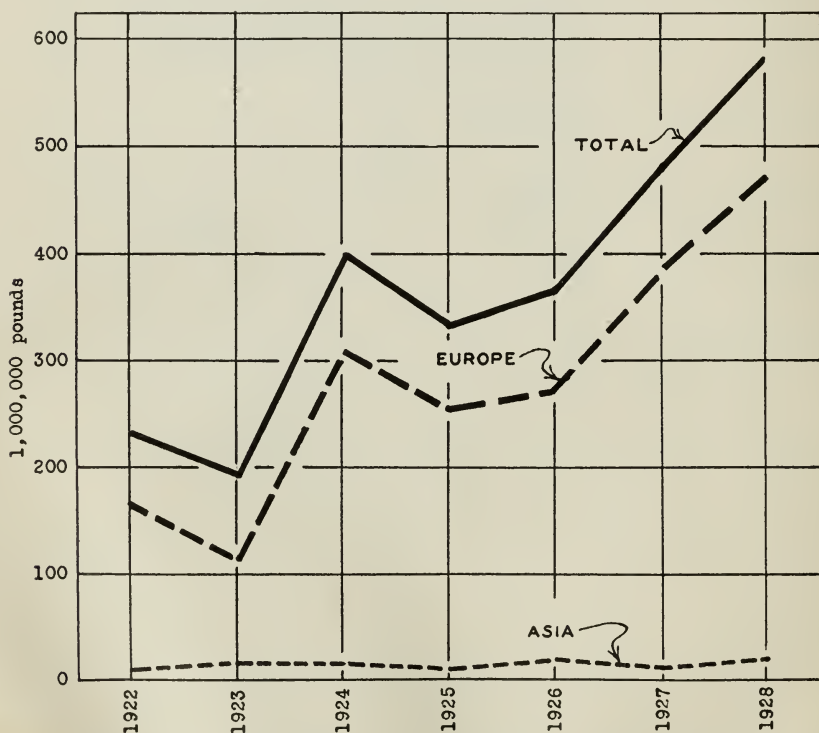


Fig. 5.—United States Exports of Dried Fruits to Asia, Europe and All Countries, 1922–1928.

or California. Expressed in tons or in pounds, the huge size of the figures is likely to be deceptive. Obviously, since our production has increased by large percentages, our market demands must be increased by somewhat similar percentages if the former price level is to be restored.

Although we are exporting to Europe 39 per cent of our entire apricot crop, 45 per cent of the prune crop and lesser but substantial amounts of the other fruit crops, we have never exported to Asia 1 per cent of any of our fruit crops (see table 7). Therefore, it is obvious that a small relative increase in our present Asiatic exports

would do little, if anything, to change the general price level of California fruits. Those who are in the business of exports from America or of imports into the Far East, or those who handle or transport these products between America and Asia, might well be pleased with any increase in the present business. Farmers, however, are

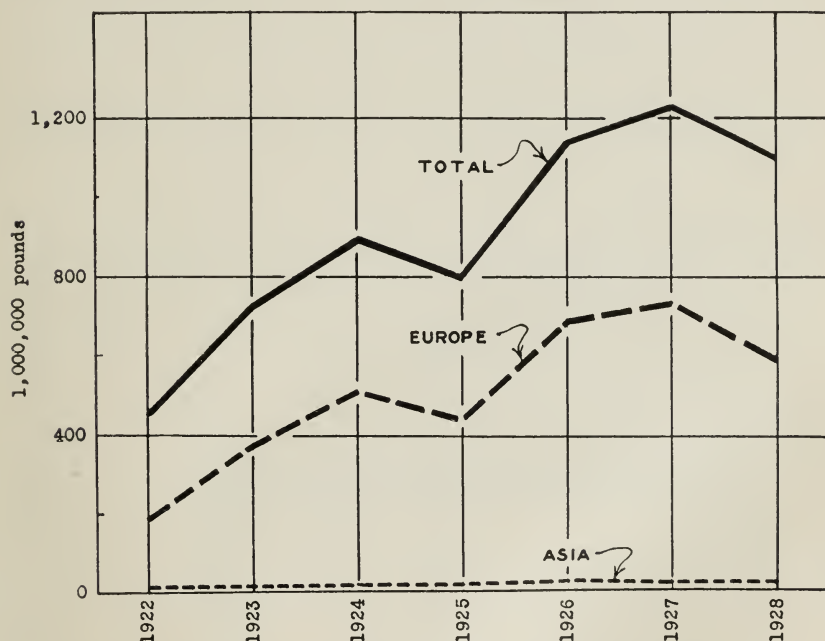


Fig. 6.—United States Exports of Fresh Fruits to Asia, Europe and All Countries, 1922–1928.

TABLE 6
UNITED STATES EXPORTS OF FRESH, CANNED AND DRIED FRUITS
1922–1928

	1922	1923	1924	1925	1926	1927	1928
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
<i>Fresh</i>							
Total.....	455,190	727,084	897,893	800,136	1,144,908	1,216,542	1,092,470
Europe.....	185,102	370,511	510,288	425,958	686,028	727,563	591,260
Asia.....	8,720	12,756	18,030	17,214	22,903	23,791	25,456
<i>Canned</i>							
Total.....	207,628	149,573	243,448	282,351	252,633	275,201	342,279
Europe.....	184,585	116,936	213,262	247,993	214,183	232,922	293,015
Asia.....	7,027	7,344	7,256	8,163	10,631	9,923	10,732
<i>Dried</i>							
Total.....	230,565	190,657	398,950	331,708	363,557	481,690	585,134
Europe.....	161,988	111,452	309,425	252,940	270,204	387,172	471,306
Asia.....	6,647	11,947	12,302	8,276	10,663	9,907	15,709

interested only in general upward changes in price level. Any effective development of Asiatic markets for our fruits is much more difficult of accomplishment when it seeks to influence favorably the entire price level at home than when it strives merely to improve the Asiatic fruit export business which in the past has used such a small fraction of the entire crop. Evidently, if the prices to California farmers are to be materially increased through Asiatic export alone, our shipments to that continent must be increased many fold.

In total, during the years 1924–1928, countries of the Far East have taken an average of 74,944,864 pounds (see table 8) of fruit per

TABLE 7

PERCENTAGE OF UNITED STATES PRODUCTION OF CERTAIN FRUITS EXPORTED TO ALL COUNTRIES, EUROPE, AND ASIA, AVERAGE 1924–1928

Fruit	All countries <i>per cent</i>	Europe <i>per cent</i>	Asia <i>per cent</i>	Others <i>per cent</i>
Apples	10.8	9.5	0.2	1.1
Apricots	43.5	39.1	0.8	3.6
Cherries	0.7	0.1	0.3	0.3
Grapes	14.1	8.4	0.9	4.8
Peaches	5.3	3.7	0.1	1.5
Pears	13.3	9.3	0.1	3.9
Prunes	51.9	44.6	0.3	7.0
Grapefruit	5.9	2.7	0.1	3.1
Lemons	3.4	0.02	0.5	2.88
Oranges	6.8	0.6	0.2	6.0

TABLE 8

UNITED STATES EXPORTS OF FRUIT TO ORIENTAL COUNTRIES
AVERAGE 1924–1928

Country	Fresh <i>pounds</i>	Dried <i>pounds</i>	Canned <i>pounds</i>	Total <i>pounds</i>
British India.....	137,992	515,108	1,399,034	2,052,134
British Malaya.....	1,426,948	399,260	702,888	2,529,096
Ceylon.....	507,665	169,108	192,624	869,397
China.....	5,413,234	20,584,480	1,556,946	27,554,660
Java and Madura.....	366,305	703,008	1,360,342	2,429,655
Other Netherland E. Indies.....	21,875	210,352	707,194	939,421
French Indo-China.....	9,277	453,712	184,056	647,045
Hongkong.....	2,907,838	1,814,388	370,660	5,092,886
Japan (including Korea).....	1,180,846	14,357,092	927,114	16,465,052
Kwantung.....	6,792	1,725,764	227,094	1,959,650
Philippine Islands.....	9,510,332	3,298,244	1,262,492	14,071,068
Siam.....	6,460	73,860	37,868	118,188
Soviet Russia in Asia.....	75,521	119,516	21,508	216,545
Total Orient.....	21,571,150	44,423,892	8,949,822	74,944,864

year from the United States in canned, dried, and fresh form, if these be all rendered into the fresh equivalent. At first glance this seems large, but as earlier discussed, it is a very small fraction of our fruit exports and less than 1 per cent of the California production.

Although our exports of fruits to Asia are less than 1 per cent in any one crop, and less than 4 per cent of our total fruit exports, the share of the Far East in our total trade is far larger. In 1928 our merchandise trade with the Far East constituted 22 per cent of the entire foreign trade of the United States. The Far East exported to the United States goods valued at over \$820,000,000 and imported goods from us valued at \$1,180,000,000.* Our trade in fruits has not kept pace with our other trade relations in the Far East.

Rendered into the fresh equivalent for the various canned, dried, or fresh fruits sent to Asia, our volume of raisins far transcends that of any of our other fruits (see figure 7). Of American fruits in any form shipped to Asia the volume of raisins exceeds the total of all

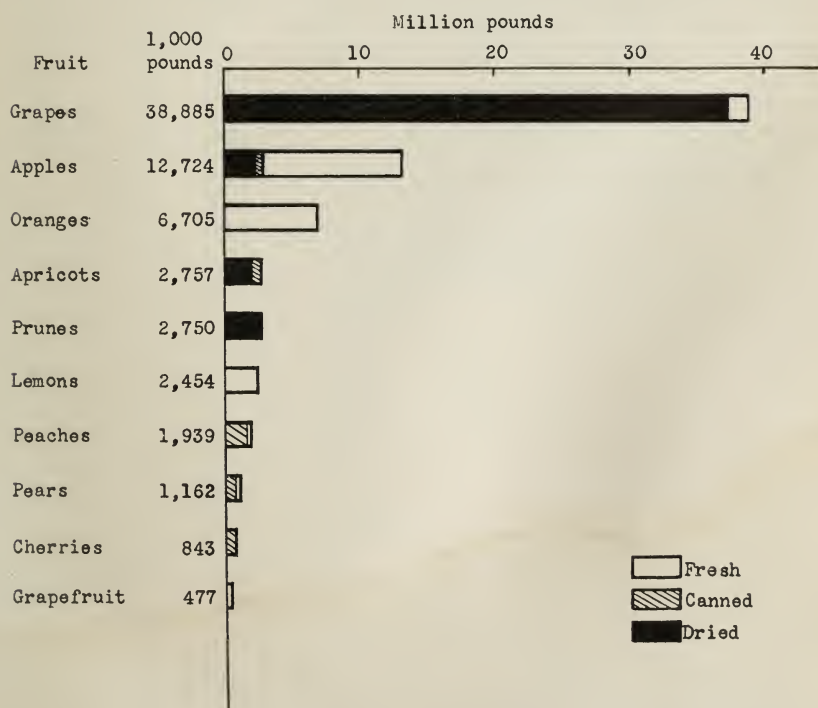


Fig. 7.—United States Exports of Certain Fruits to Asia, Average 1924-1928 (fresh equivalent).

* Spec. Cir. 165—U. S. Dept. Commerce. J. H. Nunn.

others combined (see table 9). This great volume is a recent development. Up to 1918, the amount of raisins exported to Asia was but little in excess of that of prunes, of dried apricots, or of dried peaches. Since that time the amount has so greatly increased that we are now sending about ten times as much as any of our other dried fruits (see figure 8).

China is the largest Asiatic consumer of fruits from the United States, when these are totaled in canned, dried, and fresh form (see



Fig. 8.—United States Exports of Certain Dried Fruits to Asia, 1910–1928.

figure 9). Japan ranks next, followed by the Philippine Islands. If the imports to Hongkong are credited to China and those of Kwantung, the Japanese leased territory in China, are credited to either China or Japan, as the observer prefers, the importance of these two countries in our present exports is apparent. Taken together, China and Japan with these dependencies consume almost 70 per cent of our Asiatic fruit exports, while the Philippine Islands consume 19 per cent more.

TABLE 9

UNITED STATES EXPORTS OF CERTAIN FRUITS TO ASIA, AVERAGE 1924-1928
(Fresh Equivalent)

Fruit	Total 1,000 lb.	Fresh 1,000 lb.	Canned 1,000 lb.	Dried 1,000 lb.
Apples	12,724	9,807	589	2,328
Apricots	2,757	0	585	2,172
Cherries	843	0	843	0
Grapes	38,885	1,649	.....	37,236
Peaches	1,939	15	1,616	308
Pears	1,162	127	1,035	.....
Prunes	2,750	0	.....	2,750
Oranges	6,705	6,705	0	0
Grapefruit	477	477	0	0
Lemons	2,454	2,454	0	0



Fig. 9.—Total Exports of Fruit from the United States to Oriental Countries, Average 1924-1928 (fresh equivalent).

In dried fruit exports from the United States, China ranks first, with 46.3 per cent of the entire Asiatic export sent to that country (see figure 10). Japan is the next largest customer with 32.3 per cent consigned to that nation. The Philippine Islands are a poor third, only taking 7.4 per cent of our Asiatic dried-fruit exports. China and Japan, with Hongkong, take 83 per cent of the dried fruit that goes from America to the Orient.

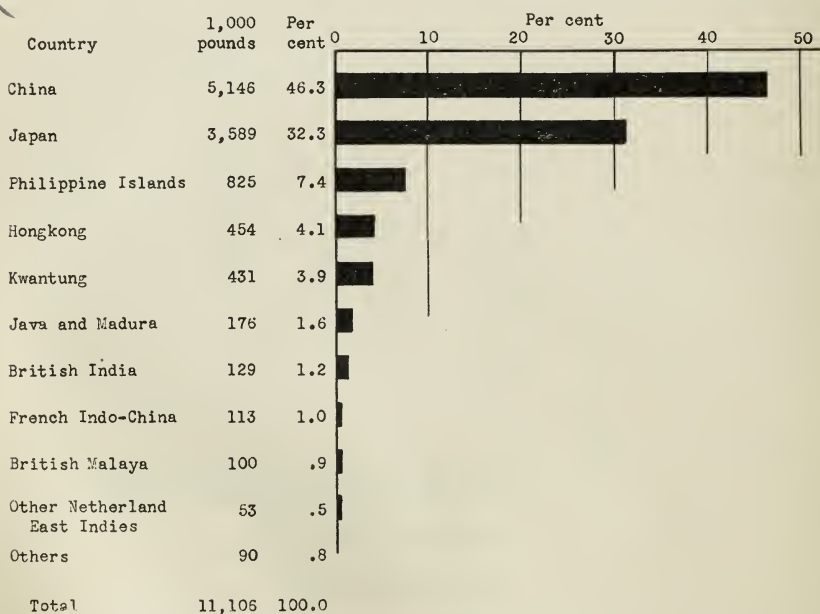


Fig. 10.—United States Exports of Dried Fruits to Oriental Countries, Average 1924–1928.

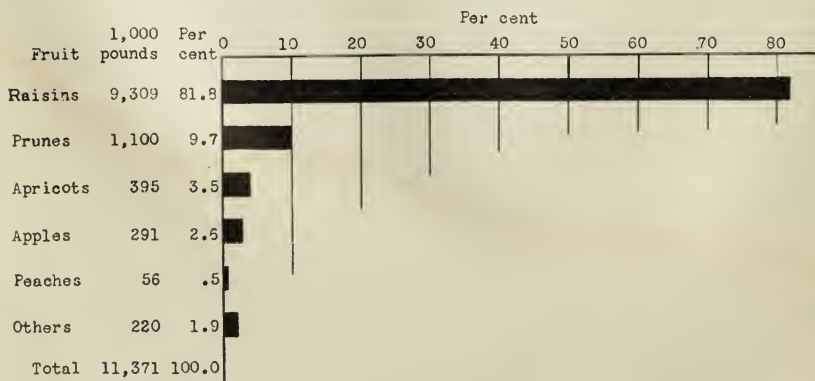


Fig. 11.—United States Exports of Certain Dried Fruits to Asia, Average 1924–1928.

In our exports of dried fruits to Asia, raisins predominate. Raisins constitute almost 82 per cent of the total (see figure 11). All others, by comparison, are immaterial.

In canned fruits, China is our greatest consumer (see figure 12), that nation taking 17.4 per cent, while Hongkong, a port of transshipment, takes 4 per cent more. The next greatest consumer of canned fruits is British India, whose total consumption almost equals that of China; its record is followed closely by that of Java and by the Philippine Islands, while Japan ranks next with 10.4 per cent of our canned fruit exports to Asia.

In exports of canned fruits to Asia (see figure 13), canned peaches still lead, constituting almost 17 per cent of our canned fruit exports to that continent. Pineapples from the Hawaiian Islands are, however, becoming a close competitor and seem to bid fair to overtake our shipments of canned peaches. Pears, cherries, plums, apricots, and apples are also exported, the amount shipped being in the order mentioned.

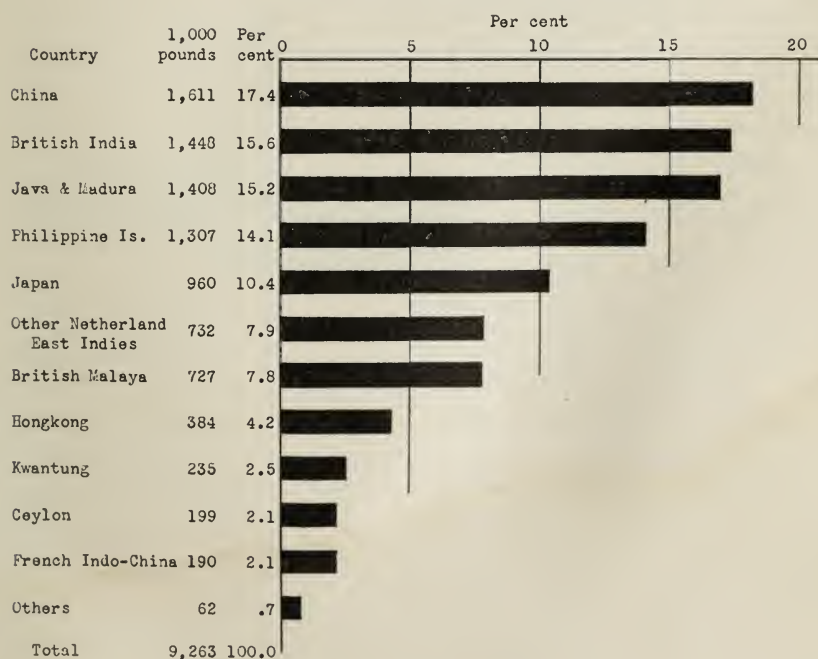


Fig. 12.—United States Exports of Canned Fruit to Oriental Countries, Average 1924-1928.

In fresh fruit exports, the Philippines are our best customer (see figure 14). Almost half of our Asiatic exports go to those islands; 25 per cent goes to China, and 13.5 per cent is sent to Hongkong. These three taken together account for over 83 per cent of the ship-

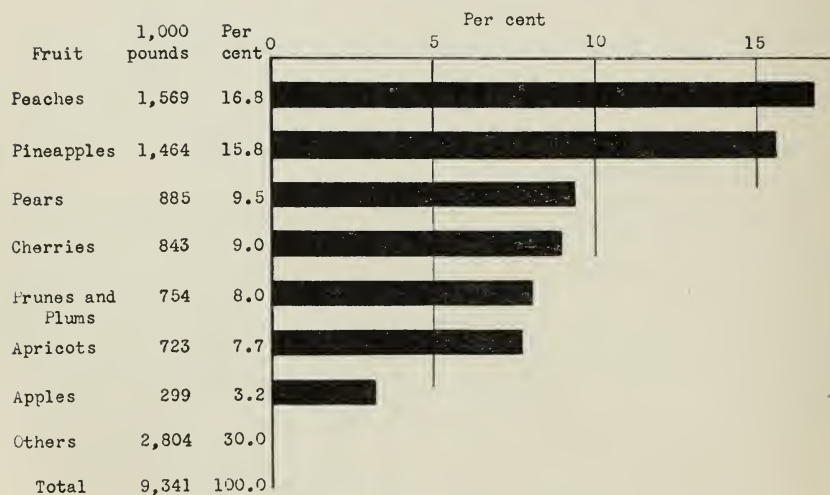


Fig. 13.—United States Exports of Certain Canned Fruits to Asia, Average 1924-1928.

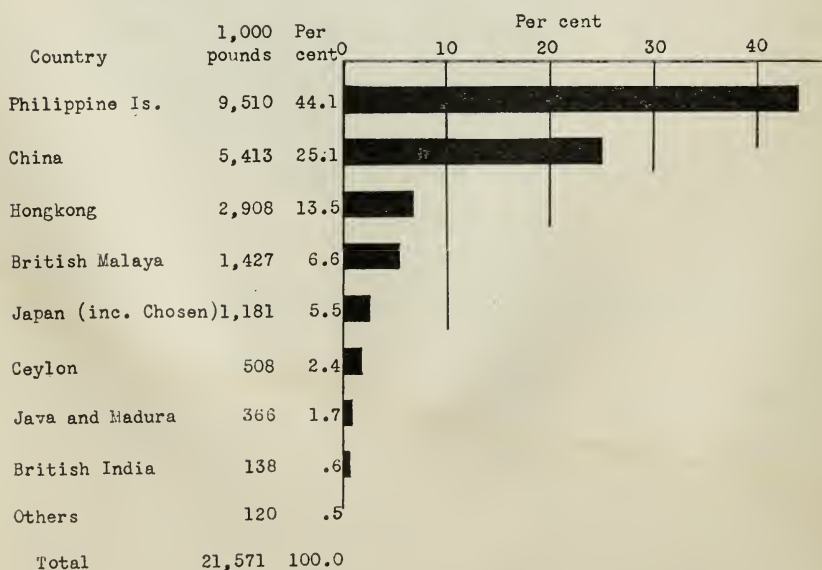


Fig. 14.—United States Exports of Fresh Fruit to Oriental Countries, Average 1924-1928.

ments of fresh fruits to the Orient; Japan, Malaya, Ceylon, Java, and others being but small purchasers.

In fresh fruits (see figure 15), apples lead the group, constituting almost one-half of the entire fresh-fruit shipments from America to Oriental countries. Oranges come next, with lemons and grapes following. These four make up 96 per cent of our fresh-fruit exports. Shipments of grapefruit, pears, peaches, and others are so small as to be of slight importance in any consideration of fruit exports.

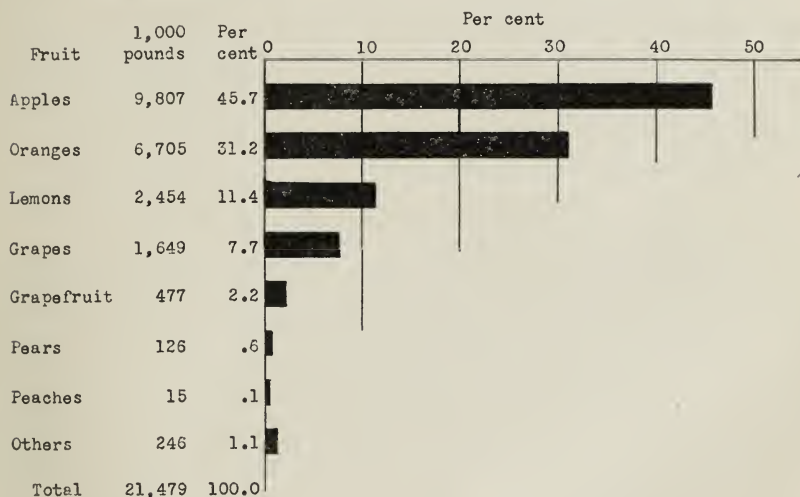


Fig. 15.—United States Exports of Certain Fresh Fruits to Asia, Average 1924-1928.

THE INVESTIGATION

This report seeks to answer the question whether demands exist or might be created among Oriental peoples by which, through methods now used or others which might be brought into existence, our markets in the Far East could be increased to a point whereby the economic situation among fruit growers would be materially improved. It also, to a lesser degree, seeks to offer suggestions as to how our present normal export business may be increased.

The investigation discussed in this bulletin has attempted to learn:

1. What the normal food habits of the people are, and what fruits and fruit products a given territory would normally consume.
2. What forms these products should take; whether the market desires them in dried form or canned form, and if so, what size package would adapt itself to local consumption.

3. How much of these products and at what prices a tributary territory might consume under proper conditions.

4. What trade promotion, if any, is necessary to develop these markets, assuming that agencies package their products in the size and kind desired.

The investigation was not limited to present trade demands or practices. It was recognized that increases in the sale of fruits in the Far East must necessarily be developed over a considerable period of time and must first be based upon a study of the consumer demands of the people in the several countries. It further assumed that if the present merchandising methods are not the best that might be used, or are not adequate in volume, means and methods might be found to improve and increase them.

METHODS OF WORK

A comprehensive investigation of the opportunities for marketing fruit in eastern Asia could only become possible within reasonable time limits through the co-operation of a wide range of agencies, governmental and private. The area included half the people of the globe. The great distances to be traveled, the enormous populations to be studied, and the fragmentary statistical information available, all made it essential for the investigation to have the active assistance of American organizations whose representatives were resident in Asia. Even the most intensive personal observation could not develop a body of facts sufficient to present an adequate and authentic picture of the situation. Only by supplementing such observations by those of many persons long resident in the countries visited could the task be accomplished. The cooperation of numerous organizations therefore became essential to the success of the undertaking.

The confidence of the investigators in the conclusions herein presented is based upon the fact that more extensive cooperation was given in this investigation than to any other peace-time study that has been made in the Far East. The conclusions herein are the result of conferences and interviews with, and letters and questionnaires from, thousands of selected individuals whose knowledge of the country and of the people is based upon a life-time of residence and contact.

Since this study was conducted under the joint auspices and authority of the University of California and the United States Department of Commerce, the investigators traveled as representatives

of both these institutions. A resident trade commissioner of the United States Department of Commerce accompanied the party, each commissioner traveling through the area in his district. The offices of the Department arranged in advance for conferences and interviews. The Department of State instructed its consuls and other foreign service representatives to cooperate and assist. In places where no office of the Department of Commerce was established, the United States Consulate was used as headquarters. There arrangements for conferences and interviews were made by the local consular officers. So large a proportion of this study was conducted in company with resident trade commissioners and consuls that this publication is, in a sense, as much the result of their investigation as that of the writers'. Mention of the names and appreciation of the efforts of some of those who took conspicuous part in the investigation is expressed under the heading "Acknowledgments."

The larger packing companies occupied in the manufacture and marketing of dried and canned fruits wrote their representatives and agents at various places in the Far East to cooperate in the furnishing of information. Farmers' cooperative marketing associations having representation abroad took similar action. The steamship companies carrying fruits from California to the Far East instructed their agents at all ports to assist in every manner within their power. Several great corporations merchandising American oil, tobacco, sewing machines, and farm machinery issued letters to their district offices requesting them to assist the commission in its search for information. The aid of these great companies was especially valuable since their organizations are spread through the interior at places impossible for the investigators to visit. Finally, a large number of individuals—farmers, educators, fruit shippers, retired businessmen, etc.—issued letters to their friends and associates whom they thought might prove helpful in giving information. Thus, on arrival at each city, the investigators found a large number of organizations and persons already informed of the purposes of this study. Many of these had gathered considerable information in preparation for the visit.

The Cannerymen's League of California and the Dried Fruit Association of California assembled and contributed forty-five sets of packages of canned and dried fruits to be used at conferences of importers and dealers. In each set were forty packages of fruit in cans and cartons, designed to show the range of the present products available in various grades and sizes of packages. All commercial labels were

removed from cans and cartons, a University of California non-commercial label being substituted. Thus the samples bore no particular brand but served to illustrate the various points discussed at



Fig. 16.—Route of the Investigation in Eastern Asia.

group conferences. These sets were shipped in advance to United States Consulates at the cities scheduled.

Because the published information on exports of fruit from California to Asia was not in sufficient detail for the purposes of this investigation, the past exports to various countries in Asia of all

fruits in fresh, dried, and canned form were compiled from the original records, the work being done under the immediate direction of Dr. H. R. Wellman. A portion of that data is published in this report. If all of it were presented it would alone constitute a considerable volume.

The investigators spent eight months in travel (see figure 16). They were accompanied by Mr. P. S. Windrem, a senior student in political science at the University of California, who acted as secretary, without salary. The countries studied included Japan, Korea, China, the Philippine Islands, French Indo-China, Siam, British Malaya, the Netherland East Indies, India, and Ceylon. Visits were made to and investigations conducted in thirty-seven cities and towns in these countries. Among these were:

In Japan—Yokohama, Tokyo, Osaka, Kobe, Beppu.

In Korea—Seoul (Keijo).

In China—Mukden, Harbin, Tientsin, Peking, Shanghai, Hongkong, Canton. In addition thereto, Mr. G. O. Woodard, Trade Commissioner at Shanghai, made for this investigation a special survey of Foochow, Swatow, and Amoy.

In the Philippine Islands—Manila.

In French Indo-China—Saigon, Pnom Penh.

In Siam—Bangkok.

In British Malaya—Singapore, Kuala Lumpur, Penang.

In the Netherland East Indies—Medan, Batavia, Samarang, Surabaya, Djokjakarta.

In India—Rangoon, Calcutta, Benares, Agra, Delhi, Lahore, Bombay, Madras.

In Ceylon—Colombo.

In addition to the above, shorter stops were made in small towns which could be reached by train or automobile, the purpose being to obtain local prices or to observe the penetration of American products in the interior.

Information was secured from an even wider range of territory. Questionnaires dealing with the problem under study were circulated in the interior of Japan and China through the medium of the Standard Oil Company of New York, the British-American Tobacco Company, and the great missionary organizations. These sent blanks to their resident European employees at places far beyond the usual routes of travel. Several universities in Japan, China, the Philippine Islands, and India circulated these same questionnaires among their senior and graduate students whose homes were at distant points and

who knew the conditions there. At this writing, 198 questionnaires from interior points have been returned and are in the files of the commission.

At each major point visited, conferences were held with importers and dealers in California fruits. This conference method had not been used in commercial investigations in Asia since it was generally not deemed possible to secure the attendance and active participation of business competitors. However, owing to the broad instructions sent out by numerous large commercial organizations and to the auspices under which the investigation was conducted, no difficulty was experienced in any country in securing a representative attend-



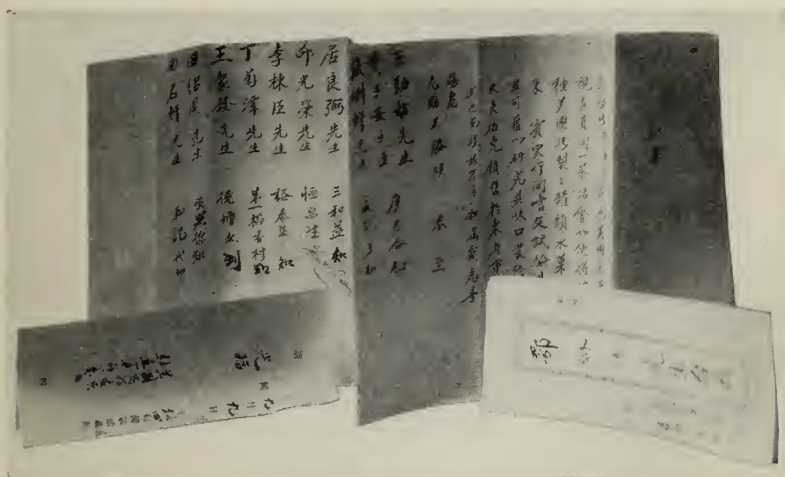
A conference with Chinese fruit dealers in the office of the Commercial Attache at Peking.

ance and active discussion. Usually the attendance depended solely upon the number of invitations issued, which in turn was determined by the number of persons in the business and the size of conference desired. Conferences of ten or a dozen persons proved more successful than those of larger numbers.

Conferences were also held at many places with native wholesalers. These proved more difficult, since the participants had usually not been present at any similar gathering, and felt some natural anxiety as to what might be expected of them. Usually, the entire proceedings required the services of an interpreter. With Chinese dealers it was found desirable to hold some of the conferences in the form of a tea to which large red invitations were issued a week in advance. This in turn was followed on the day set by a special invitation carried by messenger. At such teas the formality of the occasion quickly disappeared in active discussion. In practically all instances the conferences were held in offices of the United States Government in order

to emphasize the broad scope of the inquiry. In a few cases they were held at hotels. In no case were group conferences conducted in conjunction with any particular business firm or association.

The normal procedure at all conferences was to explain to those present the purpose of the investigation, emphasizing that the effort was designed to secure information either of a positive or negative nature on the problem of marketing more American fruit in Asia, and that essentially this meant an effort to increase the business in which those present were occupied. The statistics of present exports to that country were placed before the group, after which each kind



Some conferences with native dealers were held in the form of a tea to which large red invitations were issued a week in advance.

of fruit, such as apples, peaches, pears, etc., were discussed separately in their various forms, as fresh, canned, or dried products. In this connection the set of samples was displayed and opened before the conference, one set being thus destroyed at each meeting. Plates and spoons were used so that those present sampled the various products as they were opened. Many native dealers were found to be familiar with the exterior of the cans or packages but unfamiliar with the contents. Their interest in both quality and quantity under such conditions was marked. Even European importers evidenced a decided interest in the various commercial sizes and their relation to local demand. Every effort was made to conduct the discussion on broad lines and to refrain from questions which competitors would dislike to discuss in a group. Such questions were asked at interviews in their individual offices.

The conferences served the broad purpose of correctly acquainting the business community with the general purpose of the investigation and with the kinds of products available in California. The conferences also clearly brought out certain general information regarding markets, purchasing power, trade practices, and consumer demands. The number and attendance at the conferences at each place are given in the table which follows:

TABLE 10
GROUP CONFERENCES OF IMPORTERS AND DEALERS

	Number of Conferences	Attendance
Yokohama.....	1	12
Tokyo.....	2	44
Kobe.....	1	9
Osaka.....	1	35
Keijo.....	1	15
Mukden.....	1	11
Tientsin.....	1	21
Peking.....	2	23
Shanghai.....	3	32
Hongkong.....	1	18
Canton.....	1	46
Manila.....	1	13
Saigon.....	1	14
Bangkok.....	2	26
Singapore.....	2	38
Medan.....	1	11
Batavia.....	2	23
Surabaya.....	1	13
Rangoon.....	1	12
Calcutta.....	1	17
Bombay.....	1	25
Totals.....	28	458

The principal method of securing information was not through group conferences, valuable as these proved, but through personal interviews with those acquainted with the habits and purchasing power of the people and with the business of marketing in the Far East. Not only were all prominent fruit importers interviewed but also many other persons who had a detailed knowledge of the country. The usual procedure at each place was to call at the offices of the agents of export firms and then, one by one, to canvass other mercantile concerns which were selling extensively to the Asiatic population. After this, the scope of the investigation widened to

educators, economists, statesmen, and others familiar with the native races to whom California fruits must be sold if any large markets were to be created.

At these personal interviews, rough notes were taken; at the end of each day a detailed report of each interview and of the facts and opinions expressed was dictated and transcribed into typewriting. Naturally, not all of the interviews proved productive. In many cases the information was immaterial or was a duplication of that secured elsewhere. In such instances it was not transcribed. There are, however, in the files of the commission, typewritten accounts of interviews with 390 persons and organizations, each of which was the result of one or more visits to their offices.

Meanwhile, another of the investigators was canvassing stores and markets catering to Asiatics or to Europeans. He there secured the wholesale and retail prices of American fruits in fresh, dried, or canned form, as well as the prices of various other competing products. More than 308 stores and markets were visited.

Unfortunately, no opportunity is presented in this report to state the various authorities upon which it is based, nor the method by which the conclusions were reached. Any attempt to quote the various persons and organizations who contributed to the general conclusions for each fruit in each section would lead to a publication so voluminous as to be beyond the bounds of practical form. Furthermore, many of those consulted, particularly business organizations, discussed the problem with the investigators in a quasi-confidential manner. They understood that they were not to be quoted before competitors and that their remarks were only to be used in enabling the investigators to arrive at a general conclusion.

This report would undoubtedly be more impressive if the suggestions made herein could be stated under the authority of the many persons who made them rather than, as now, only upon the authority of the investigators. For example, in the section on the Netherland East Indies, on page 245, it is stated that in that country "canned grapes in small units might be placed within the range of frequent use by Chinese." This observation was first brought to our attention by the Captain-General in charge of all the Chinese in Sumatra who, himself a Chinese, had discovered a few eight-ounce cans of Thompson seedless grapes on sale in a local store and had purchased them for his own use. To emphasize his remarks, he sent to his home for one of these small cans "packed in California, U. S. A." With this can before him he traced the whole philosophy of the small unit of sale

to purchasers of low incomes and suggested that California had an opportunity to develop its fruit markets through this method. His suggestion led to inquiry among many others, out of which grew the conclusion quoted above.

Although there appears to be no reason why the above illustration of the methods of investigation should not be mentioned here, it would be impossible to follow such a plan of presentation throughout this report, both because of the size of the volume that would result, and because of the understanding of confidence under which much of the information was gathered.

The following sections treating the market for fruits in various countries were written at the time and place, or immediately thereafter. The final section, termed "Conclusions," was written while returning to America. The report thus expresses the viewpoint of the investigators while their impressions were fresh and unobscured by later problems.

Unless otherwise stated, all weights and measures have been converted into American terms and all values to United States currency.

FRUIT MARKETS IN JAPAN

TABLE 11

DIRECT FRUIT EXPORTS FROM CALIFORNIA TO JAPAN (INCLUDING KOREA)

Kind of fruit	1927		1928		1929	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
<i>Canned</i>						
Berries.....	1,370	218	2,290	407	16,880	1,810
Apples.....	225	26	400	28	2,440	330
Apricots.....	108,468	10,906	97,163	10,352	106,236	12,434
Cherries.....	23,394	3,818	33,218	5,065	42,764	6,743
Prunes.....	37,858	4,005	18,200	1,569	6,180	884
Peaches.....	213,641	18,927	214,732	17,958	195,349	19,035
Pears.....	35,059	4,385	35,768	4,662	47,564	6,403
Fruit for salad.....					47,945	7,832
Other canned.....	5,642	780	19,367	2,035	105,023	9,402
Pineapples.....	14,060	1,538	10,378	1,169	13,770	1,647
Jams, jellies, etc.....	52,593	12,842	82,927	15,659	20,078	5,966
Total.....	492,310	57,445	514,443	58,904	604,229	72,486
<i>Dried</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Raisins.....	2,835,131	205,816	2,953,110	193,646	2,990,935	200,985
Apples.....	1,200	210	1,422	255	2,460	433
Apricots.....	77,998	19,924	91,440	15,740	272,440	52,886
Peaches.....	240	36	1,780	266	3,352	365
Prunes.....	71,480	5,521	111,808	10,606	135,206	15,270
Pears.....					1,562	209
Other dried.....	3,097	518	8,882	1,359	4,040	650
Total.....	2,989,146	232,025	3,168,442	221,872	3,409,995	270,798
<i>Fresh</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>
Grapefruit.....	530	2,499	542	2,935	824	4,486
Lemons.....	14,346	91,274	15,028	98,500	17,167	119,312
Oranges.....	4,517	25,781	4,451	25,791	4,798	26,539
Apples.....	1	10	10	15	301	604
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Berries.....	100	19			100	18
Grapes.....	13,185	1,290	60,620	3,140	2,256	150
Pears.....					440	51
Other fresh.....	14,410	1,235	17,230	1,036	22,990	1,642

FRUIT MARKETS IN JAPAN

Whereas the entire Japanese Empire has an area of 260,704 square miles, Japan proper comprises only 142,000 square miles. In 1925 its population was 59,763,000. Although Japan is mountainous and volcanic and has an area only approximately one-twentieth that of the United States, it supports a population about half as large as that in America. Furthermore, this population is steadily increasing at the rate of about 6.7 per cent every five years. Japan is one of the most densely populated countries of the world. The population is 61 persons per square mile, or 376 persons per square mile of cultivated area. This latter is three times the density of Belgium, four and a half times that of England, and nine times that of France. With so great a population massed upon such a small cultivable area, it is remarkable that Japan has been able to remain so nearly self-sustaining. "It was only after Japan had acquired the island of Formosa and a part of Saghalien, and had annexed Korea that she obtained an outlet for her large and growing population."*

Japan has two cities, Osaka and Tokyo, each of which has a population of over 2,000,000 people. Four other cities—Nagoya, Kyoto, Kobe, and Yokohama—have about 500,000 or more each. The growth of the cities of Japan, through the industrialization of the nation and the higher wages in town than in country, has created one of the major social and economic problems of the Empire. However, Japan still remains largely a farming nation since half the families of Japan are farmers. Five and one-half million families till the land, cultivating 14,959,250 acres, or somewhat less than 3 acres per family. Even in the cold northern island of Hokkaido, which is largely a grazing and dairy country, the average area is only $7\frac{1}{2}$ acres per family. In Japan, one acre has to feed a little under four persons.

Rice is the great staple farm crop of Japan, more than half the total area under cultivation being given to this cereal. As a second crop, barley, rape, peas, and beans are grown. Fruit growing is a well-developed industry, there being about 250,000 acres in various fruits. The increasing rates for rental of land and the rising wages of farm laborers have led to a desire to find crops which would return a greater revenue per acre than rice and other grains. The situation is thus somewhat analogous to that in California. Under these condi-

* Japan Year Book, 1929, Tokyo, page 488.

tions fruit growing has increased. As discussed elsewhere in this report, Japan is reaching southward to find markets for these fruits.

A small number of the population of Japan is wealthy and can afford to buy anything that pleases them. The middle class is relatively small in number. Although in America, these make up our great purchasing power, they are difficult to find in Japan. Many highly educated men get very small salaries. The great bulk of the people are poor. Although the average standard of living is higher than in China or India, it is decidedly lower than anywhere in the Occident. A large number of people in Japan work for very low wages. The great farm population, constituting at least one-half of the total, is notoriously poor. Laborers in the cities in occupations requiring some skill get an average wage of a dollar a day. High-class clerks in city business houses and banks, men of high school or university education, are normally paid \$100 a month. They must dress well and usually support a considerable family. Positions of this kind are so scarce, however, that those holding them seldom if ever resign. To all these great classes, any additional regular expenditures for foodstuffs is of considerable concern. Luxuries may be occasionally bought by them at holiday and festival times.

Travelers making a casual visit to the ports of Japan are prone to be mistaken as to its modernization. Persons who have not visited that country are even more likely to be deluded by articles and pictures appearing in the magazines. Japan, quite properly, is proud of the enormous progress which she has made in the last half century and is eager to write about and to display pictures of the great banks, department stores, and boulevards in her principal cities. However, the bulk of the population of Japan lives in smaller towns, villages, and farms of the country. To most of these, life has changed in only superficial measure under the westernization which has gone forward throughout the nation. Most of them still live in the same houses, wear the same sort of clothing, and eat the same kinds of food as did their forefathers a century ago. To be sure, they travel occasionally on railroads, have a few modern devices in their homes, and probably even an electric light. But these western improvements have but little to do with the daily life of the people. Their expenditures flow largely along the same channels as in former times.

An attempt was made to estimate the percentage of the Japanese people who might ultimately be able to afford American canned and dried fruits in some form, assuming that the luxury tariff and other difficulties were removed. No definite facts or figures exist which

would enable an accurate estimate to be made. Any conclusion can at best be only a shrewd guess by those who have an intimate knowledge of the people. Many persons were consulted. These included foreign residents, Japanese educators, economists, statesmen, and businessmen. Estimates of the buying power of the nation for American fruits varied from 1 per cent of the population, made by certain agents of California packers, to as high as 15 per cent, an estimate made by some of the Japanese themselves. Each of these figures may be taken as extreme estimates. Probably a correct figure lies somewhere between them. In any case, it is evident that the great majority of the Japanese are too poor to purchase American fresh, canned, or dried fruits.

The climate of Japan is characterized by heat in summer, cold in winter, and a high rainfall. These islands are one of the rainiest regions in the world. It rains or snows an average of 150 days a year. Thus, in summer, the heat and high humidity of Japan necessitates the protection of dried fruits in tins rather than cartons. Bulk dried fruits exposed to the air rapidly spoil. Canned fruits containing pits and seeds, such as cherries, plums, grapes, etc., are likely to swell by action of a gas generated within the can by the high temperature. However, the high summer temperature makes this country one in which fresh fruits, fruit drinks, and fruit ices would meet the needs of the people.

Fruit in the Japanese Diet.—The staple diet of the masses of the Japanese people is based upon rice with a small addition of fish and other sea products, and with a limited amount of vegetables. Twenty per cent of the people of Japan make their living from the sea, sending their harvest to those upon the land. Only recently have the Japanese begun to eat meat.

The regular diet of the Japanese does not include fruit. A small pickled plum is used as a condiment. These are preserved in almost every household. Native fresh fruits, including a hard round pear which resembles a russet apple, are eaten in season and keep well into the cold weather. Native mandarin oranges are popular during the winter. All these, however, figure in the Japanese mind as a refreshment rather than as a food.

With the advent of western customs and manners among the upper classes in the large cities, the consumption and production of fruit in Japan has increased. It must be remembered, however, that these upper classes constitute but a very small percentage of the whole population. Fruit, native or imported, is a decided luxury. The

poverty of the great mass of the people makes the cost of these commodities beyond the range of their usual daily diet.

Cooked fruits were originally unknown to the Japanese so that housewives generally have no knowledge of how to prepare them. The introduction of cooked fruits in pastries and as deserts has gone forward largely through foreign restaurants, but these are located only in the big cities. Many Japanese businessmen find it a novelty to eat occasionally at these restaurants. They are not usually accompanied by their wives, because originally it was not considered quite respectable for women to appear in public eating-places. Thus, the housewife, who is the family purchaser and perhaps the cook, does not come in contact with these foreign foods and, if she did, would not know how to prepare them.

The popularity of canned fruits among the Japanese is based upon the fact that they do not need preparation. When the can is opened they are ready to serve. Raisins were introduced as a confection to be eaten out of hand in place of candy, rather than as an item in a regular meal. Their recent use by public bakers is the result of trade promotion in some of the metropolitan centers.

In foreign foods, the Japanese have not yet learned to discriminate. The appearance of the Japanese foods was not particularly attractive. The relative attractiveness of imported foodstuffs as well as their novelty, constitute much of their selling power. Appearance is preëminent; fine distinctions of taste, familiar to the American palate, are secondary. Thus, the appearance of the container and of the commodity itself, is of the highest importance. The Japanese are shrewd and careful buyers. Because they lack the ability to discriminate by means of taste, they exercise their shrewdness in demanding a package or container which has become known to them as first class. They are likely to discard all unknown packages as probably of inferior quality.

The Japanese taste in foods is not always similar to our own. A canned or dried fruit which may be acceptable to an American does not necessarily appeal to one who is trained in the Japanese diet. At first, this may seem difficult for many Americans to understand, but if they will recall that it was only a quarter of a century ago that Americans were learning to eat grapefruit and green olives they may be better able to understand how the Japanese feel when confronted with a prune or dried fig. In America the grapefruit and the green olive came into use because they were thought to be fashionable—the proper thing to serve as a novelty and as a mark of distinction. Many

Americans will recall that they greeted the green olive with distaste, but were told that if they would eat three of them they would then learn to like them. We have almost forgotten that we were trained to their use. More recently the ripe olive and the avocado have been undergoing similar experimentation by many Americans. To the Japanese, some of our fruits are just as unfamiliar and perhaps at first as little liked.

At the five conferences held in Japan, Japanese predominated. The attendance at various conferences ranged from six to forty persons. Samples of American canned and dried fruits were opened one



A conference of Japanese fruit dealers at Osaka.

by one. Those attending the conference were given a plate and spoon so that each commodity might be sampled. Despite the fact that in large measure those attending the conferences were importers, wholesalers, dealers, and grocers, it was apparent that certain of the fruits displayed were totally unfamiliar. The Japanese are proverbially a polite people. They courteously sampled the articles displayed when urged to do so, but a certain effort was required to get them to express a frank opinion about the various fruits after trying them. When they realized that the investigators were really desirous of learning the preferences of the Japanese as represented by those present, they candidly declared that a number of the fruits did not appeal to their taste at all. For example, the Japanese seem to prefer a firm fruit. Thus, canned pears were too soft for the Japanese liking. Dried peaches are disliked because of the fuzz on the skin. Canned ripe olives had no good qualities whatsoever. Dried

figs always brought an interesting discussion; some preferred the black Mission fig, some the white Calimyrna. They were unable to agree upon a preference.

In the country districts of Japan, little if any American fruit in any form can be found on sale. Even in the larger towns outside of the influence of the big cities, American fruits are not displayed. Just as in America florist shops are confined to the large towns and cities, so in Japan, American fruits are sold only among the wealthier classes of the larger towns. This is not only because they are expensive but also because they are unfamiliar.

Fresh Fruits.—The importation into Japan of apples, apricots, pears, peaches, plums, quinces, and walnuts is prohibited from the United States of America, Canada, the Union of South Africa, Australia, Tasmania, New Zealand, and Brazil under the plant quarantine regulations.* Therefore it must be understood at the outset that these fruits are eliminated for the present from any practical discussion of the markets for American fresh fruits in Japan.

Importations of fresh fruits from America have been confined for recent years to lemons, oranges, and grapes. These fruits pay a duty under the so-called "luxury tariff" of 100 per cent. Their prices in Japan are necessarily high. In comparison with them, the native fresh fruit under a protected market seems comparatively cheap.

Fruit growing is now a well-developed industry in Japan, there being about 250,000 acres devoted to fruits, the production of which in 1927 was about as shown in table 12.

TABLE 12
FRUIT PRODUCTION, 1927

JAPAN			
	Tons		Tons
Apples	78,858	Navel Oranges	15,655
Grapes	45,402	Peaches	56,856
Loquats	14,994	Pears	159,486
Mandarin Oranges	239,396	Persimmons	240,219
Bitter Oranges	53,821	Pineapple (Formosa)	10,594

Thus Japan produces about 2 per cent of the amount of grapes grown in California and 11 per cent of California's peach crop. However,, its pear crop almost equals that of California, being 85 per cent of the average production of that state.

* Ordinance No. 21 of the Department of Agriculture and Commerce of Japan. Issued August 13, 1920.

In old Japan the persimmon, the hard native pear, the loose-skinned orange, and the peach were the principal fruits. With the introduction of foreign fruits into the country and the planting of stocks of European varieties there has come an increase in kind as well as in variety. European varieties of apples, peaches, pears, and grapes are found in many parts of Japan. Persimmons are grown almost everywhere, although seldom in orchards. In August 1929, native pears of Bartlett type were selling at about 7 cents each, peaches at 2 to 10 cents each, early figs at 4 cents each, plums at 9



Japan packs its apples and grapes in a modern manner. Note the method of roping cases for shipment.

cents a pound, and hothouse grapes, the only ones then in the market, at 50 cents a pound. Fresh native peaches are eagerly eaten by the Japanese during the summer season despite their comparative lack of flavor. They even sell as high as 70 cents for an attractive box of five, in the best stores.

Fresh fruits are given as presents, particularly to the sick. It is customary to give fruit rather than flowers to those to whom one desires to express sympathy. Baskets of attractive fresh fruits which sell for \$1.50 to \$3.00 a basket are prominently displayed in stores of the large cities. Japanese fruit stands specialize in the appearance of the fruit. It is arranged and displayed more attractively than in America, but the occidental buyer is likely to be disappointed when

tasting the native fruits, which are relatively flavorless, belying their fine appearance. To the Japanese, however, they are quite satisfactory, and are eagerly consumed in their season as a luxury.

The exports of lemons from America to Japan are greater in declared value than that of any other fresh fruit. In 1929 there were 17,167 boxes of lemons from California exported to Japan at a declared value of \$119,312. In lemons, the California product has a practical monopoly. Packed 300 to the box, they sell at retail for 6 to 10 cents



Boxed Japanese apples are shipped to all the countries of southeastern Asia.

each, according to the season and the market price in America. The fluctuation of these American prices, due to the varying demand in our own country, is one of the problems confronting the importer. Frequently a period of high prices in America will not coincide with that of the greatest demand in Japan. The importer is therefore reluctant to order lemons at high prices for fear that he may not be able to dispose of them at a profit or even at cost. The importation of lemons has also been somewhat hazardous because of spoilage and breakage of crates. Because of their high cost the consumption of lemons has been confined to the highest classes. A lemonade made from fresh fruit, is an expensive drink in Japan. It can only be obtained in the very best hotels, clubs, and restaurants in big cities. The purchase of

lemons, both by Japanese and foreigners in Japan is more than a luxury—it is a delicacy. The amount of lemons imported is therefore likely to increase but slowly so long as present prices obtain.

Oranges rank second in declared value. In 1929 there were 4,798 boxes shipped from California to Japan, having a declared value of \$26,539. Oranges from America are unrivaled in the Japanese market. The native oranges are marketed throughout the winter in large quantities and the loose-skinned mandarin orange is exported into America for the Christmas trade. The California orange, however, is recognized as a different product, and as a delicacy that is appreciated by the higher classes. Oranges from California, packed 125 to the box, sell for about 20 cents each at retail. At times this price rises to 30 cents. At such prices even the foreign resident in Japan finds them almost prohibitive.

Grapes usually rank third among our fresh-fruit exports to Japan. In 1928 there were 60,620 pounds sent from California at a declared value of \$3,140. These grapes from America find a ready, though limited, sale in the large cities in competition with native grapes of Japan. The necessarily high price of American grapes, due to the 100 per cent luxury tariff, prohibits them from becoming extensively used except among those to whom cost is a secondary consideration. Early season American grapes compete only with the hothouse grapes of Japan. These latter were selling in the middle of August for 50 cents a pound. Late American grapes find little competition from the native grapes. At the time this investigation was made no American grapes had yet arrived in the market for the 1929 season.

Fresh fruit is generally imported into Japan through agents of California fruit exporters in Yokohama and Kobe on the basis of c.i.f. prices submitted. Interest on drafts is usually charged at the rate of 7 per cent. Fruit comes by freight under refrigeration from California ports at the following rates: apples, \$1.10 a box; oranges, \$1.50 a box; grapefruit, \$1.55 a box; lemons, \$1.70 a box and \$0.95 a half box; grapes, \$25 per ton of 40 cubic feet. Other fresh fruits such as peaches, pears, etc., would be at the rate of \$32 per ton of 40 cubic feet but none are imported in Japan because the plant quarantine regulations prohibit.

Arrived at Yokohama or Kobe, fresh fruit must pay 100 per cent ad valorem duty under the luxury tariff. Landing charges at Yokohama vary from one-half cent to a cent per case. If the fruit is to be transported to Tokyo this is usually done by lighter, the charge for which averages 94 cents a ton. Coolie hire to place cases in the

cold rooms of refrigeration plants averages 1 cent a case at Yokohama or Tokyo. At Kobe, lighter and tug hire from ship to shore averages 42 cents a ton. Landing and hauling charges to cold storage warehouses average 56 cents a ton. At Yokohama there is a cold storage space for about 1,200 cases in private warehouses available for public rental at 23 to 27 cents per case per month. At Tokyo one cold storage company has 6,000 cubic feet for rental at the rate of 29 cents per case



The Japanese grape-growing industry is much smaller than that of California, but the grapes are of good quality.

per month. At Kobe the charge in warehouses is about 51½ cents per case per day based upon a rental of 60 days.

In Japan very little imported fresh fruit finds its way beyond the port cities of Yokohama and Kobe and their nearby larger cities of Tokyo and Osaka. The wealthy classes who consume these high-priced luxuries are largely in these cities. The Imperial Japanese Railways have, however, approximately 1,200 refrigerator cars, about 1,000 of which are in use at the present time. These can be dispatched to any part of the railroad system, but are at present used only for the transport of fresh fish between Tokyo and Osaka, Tokyo and Kyoto, and Tokyo and Nagoya. The cars are of sheet steel with an ice chamber in the center. Their capacity is from seven to twelve tons each. Less

than carload lots are not accepted. Rates vary from 21 cents per ton for short hauls of one to five miles up to \$2.16 for hauls of 98 to 100 miles. Because imported fruits are at present consumed only in the big cities, and because in any case distances in Japan are comparatively short, refrigeration on railways is not a factor in the development of markets for American fresh fruits in Japan.

The expansion of markets for fresh fruits is rendered exceedingly difficult by the fact that most fruits cannot be imported into the country under the present plant quarantine laws and because the few fruits that can be admitted are dutiable under the 100 per cent luxury tariff. Furthermore, the native fruit-growing industry of Japan is expanding and improving. Although native fruits are excellent in appearance most of them are inferior in flavor, but this is not realized by many of the purchasing class. In Korea, Manchuria, and Kwantung fruit of finer flavor is produced. All this territory is under Japanese ownership or railway control. It may be expected that larger amounts of fruits from these regions will be imported into Japan (proper) in future years.

A modification downward of the luxury tariff, which has long been rumored, would undoubtedly make it possible to increase the sale of imported fruits through a decrease in the retail price. At present prices, American fresh fruits can only sell to a very limited group of wealthy persons. Even some of the foreign businessmen, presumably of considerable income, stated that the high price of fruits of imported origin was a considerable drain on the family purse.

Watermelons have become common in Japan. Native watermelons of moderate size are on sale in many of the towns of the Empire. These are readily eaten by the people, and may be purchased by a considerable element of the population, since they sell at about 25 cents each. Melons of cantaloupe or honeydew type have not yet been generally and successfully produced. A limited number are on sale in the Japanese stores for \$1.50 each, but these do not have the flavor of the American melon. Cantaloupes, casabas, and honeydew melons, if they could be imported at reasonable prices, would probably find a considerable sale among a limited class in the large cities, including those foreigners who have become accustomed to them at home.

Canned Fruits.—American canned fruits are popular in Japan among the upper classes in the large cities. However, they encounter the competition of the Japanese canned fruits which, from behind the wall of the 100 per cent luxury tariff, can radically undersell the imported canned fruits.

Japan has a well-developed canning industry. The value of its products are shown in table 13.

TABLE 13
CANNING INDUSTRY IN JAPAN
REPORTED VALUE OF PRODUCTS CANNED

	Beef	Fish	Fruits	Vegetables
1924	\$1,856,970	\$4,351,000	\$576,220	\$2,125,810
1925	1,328,220	3,487,000	572,760	2,032,280
1926	1,262,240	4,422,000	543,790	1,579,670

Source: The Japan Year Book, 1929. Tokyo. Page 578.



Japan has a well-developed canning industry. Pineapples, mandarin oranges, peaches and loquats are the principal products.

Pineapple is the most generally used canned fruit of any in Japan. Over 90 per cent of this pineapple is of native manufacture from pineapples grown in Formosa. In 1928 the pack of Formosan pineapples was 300,000 cases. This pineapple is inferior to the Hawaiian canned pineapple; the core is frequently not well taken out and the fruit itself lacks the pungent flavor which makes it so popular in America. The low price of the product, however, appeals to the Japanese purse. A No. 2½ can of Formosan pineapple retails in Japan for about 37 cents. Small cans containing 8½ ounces of this same pineapple are beginning to find ready sale in the department stores at 9 cents each.

Other fruits than pineapple are extensively canned. Japanese canned peaches in the No. 2½ can sell at retail for 35 cents. Japan has been unable, despite the efforts of its agricultural experiment stations, to produce a yellow cling peach. The native canned peaches are therefore packed from a white peach, which is far less attractive and which is recognized by the Japanese themselves as inferior to the American canned peach. Some native peaches are artificially colored

before canning to make them resemble the American product. American canned peaches would have little competition from native peaches, if both could be sold for the same price. Owing, however, to the 100 per cent luxury tariff of Japan, and perhaps also in part due to



Japanese canned fruits are extensively advertised. This attractive poster strives to promote the sale of Formosan pineapple.

the low cost of Japanese labor used in manufacture, the canned peaches of Japan materially undersell American peaches in the market.

Japanese canned cherries in the No. 2½ can retail at 33 cents, and pears at 35 cents. Loquats in an 8-ounce can are on sale at 13 cents. All these are of decidedly lower grade than similar American products. The price differential is so great, however, that it is a controlling factor with a considerable element of the middle class population.

American canned fruits were on sale only in the large cities. Small cities and towns generally do not offer any imported canned fruits although a small variety of native canned fruits may there be seen. Representative retail prices of American canned fruits were as given in table 14.

TABLE 14
CURRENT RETAIL PRICES, AUGUST 1929
AMERICAN CANNED FRUITS IN No. 2½ CANS

	JAPAN		
	Tokyo	Kobe	Osaka
Apricots	\$0.71	\$0.71	\$0.71
Cherries .....	.70	.84	.84
Peaches .....	.58	.58	.58
Pears .....	.74	.74	.76
Fruit Salad .....	.84	.84	.84

Eight-ounce cans of American fruit had recently appeared in the largest stores of Japan. These were not as yet sold in any large volume. Retail prices for peaches and apricots were 18 cents per can; for pears 21 cents, and for fruit salad 25 cents. These same small cans are usually offered in the ten cent stores of America.

Peaches are the most popular canned fruit in Japan. Those cut in halves are preferred to the sliced because the Japanese think of halved peaches as a superior product. For this same reason, the Japanese are reluctant to believe that the small 8-ounce cans, which are necessarily filled with fruit in slices or cubes, contain the same quality of fruit as that in the No. 2½ cans with which they are familiar.

Among canned fruits, our exports of canned peaches rank first, the shipments in 1929 totaling 195,349 pounds, with a declared value of \$19,035. Canned apricots come second in our canned-fruit exports to Japan. Of these we sent 106,236 pounds, valued at \$12,434. Cherries in canned form are liked by the Japanese of the sophisticated classes. Importers, however, find difficulty in successfully marketing

them in Japan, as owing to the hot summers, the pit in the fruit generates a gas which creates a large percentage of swelled cans. This same difficulty is experienced with other stone fruits. Except for fruit salad, the sale of other canned fruits is small.

The No. 2½ cans predominate in sales in Japan. Canned fruits are extensively used as gifts, one or two cans being given as a present. Baskets of assorted canned fruits are also for sale. A large percentage of the American canned fruits sold in Japan are purchased at the two festival seasons of the year. At other times they are likely to stand on the shelves as a display to advertise the high quality of the store itself, rather than with the hope of finding purchasers.

American canned fruits are imported on the basis of a c.i.f. price through orders placed with agents of American packers. Freight from California ports to Japanese ports is \$14 per ton of 40 cubic feet. On arrival in Japan the canned fruit must pay a duty of 100 per cent under the luxury tariff except fruits canned in water instead of syrup, which are shipped into Japan for the use of bakers. These avoid the luxury tariff rates. Since, however, in this condition they are relatively tasteless to the Japanese, fruits in water are used only to decorate pastries.

Importers generally were of the opinion that the large can of imported fruit was the only one that was salable in Japan because of the fact that American canned fruits are purchased only by the luxury classes who desire to consume the best product in the most luxurious manner.

So long as American canned fruits are offered only in the large size package they will probably only be used by the very highest class of buyers. The introduction of the small can, holding either 1 pound or 8 ounces, would undoubtedly become popular among certain of the Japanese people if trade promotion methods accompanied its exhibit and sale. In effect, this would be comparable to introducing a new commodity, since the small can would find a different usage and a different clientele than that of the larger size. Large cans are now used for parties in the home, for consumption in restaurants, and for presentation as gifts. The daily common use of canned fruits in the same sense as in our own country is practically unknown. The 8-ounce can is becoming popular among American housewives because of its usefulness to the small family at small expense on ordinary occasions. It might be expected to appeal for the same reason to the Japanese. The introduction of the smaller can would necessarily involve an expenditure of money for display, advertising, and demonstration.

If these, however, were judicially employed, it might be expected that the small can would prove relatively popular in Japan.

The luxury tariff on imported canned goods may be somewhat modified if not entirely abolished in the near future. With this restriction removed, American canned fruits would have their sale somewhat increased and the competition of Japanese native canned goods would thereby certainly be reduced. It cannot be expected, however, that even with the luxury tariff removed, American canned fruits would be sold at as low a price as the native product. The appeal of American canned fruits in the future as in the past must be based upon their superior quality and attractiveness.

Dried Fruits.—Among the countries of the Far East, Japan ranks second as an importer of dried fruits from America, being exceeded only by China. In 1929 the direct exports of dried fruits to Japan from California totalled 1,705 tons and were valued at \$270,798. Our largest exports of dried fruits to Japan are raisins, of which we sent 2,990,935 pounds to that country in 1929, with a declared value of \$200,985. Our next largest shipment of dried fruits was but a small fraction of the amount for raisins. We shipped 272,440 pounds of apricots, having a declared value of \$52,886.

Raisins owe their present large demand to promotion work carried on through the principal cities. Raisins were introduced into Japan by means of the small 1¾ ounce package which sells in America for 5 cents. In Japan they sell at the same price. An extensive advertising campaign was conducted. Through a chain of Japanese distributors, the packages were broadcast over the Empire. These happened to appeal to the Japanese taste as a confection rather than as a foodstuff. The largest sale at first was among the children who bought these small packages. Owing to the large number of fruits in a package, children were able to pass them around to their friends, one package thus serving as a confection for a group. Because of spoilage caused by the hot damp summer climate of Japan, the sale of raisins in the small carton is limited to the winter months. Since fruits in cartons are now subject to the luxury tariff, raisins are generally imported in 25-pound cans, and are repacked in Japan in the sizes desired.

Five years ago a campaign was started among the bakers for the use of raisins in bread and pastries. The method used was to get one or two bakers in each of the large cities to develop these uses for raisins. Their success led their competitors to follow suit. At the present time about 200 tons of raisins a year are used by the bakers in the vicinity of Tokyo and Yokohama alone. A recipe book was

distributed free to cooking schools and other similar centers from which the knowledge might spread. Although a few years ago three-fourths of the raisins imported into Japan were sold in the 5-cent package, now two-thirds of them are sold in large units to bakers and restaurants. The greatest use of raisins would naturally be in connection with rice in the daily diet of the Japanese. Unfortunately, however, efforts to introduce raisins for this purpose have not been successful.

There has been some decrease in the use of raisins as a confection among children, partially owing to the fact that their original purchase held the charm of a novelty, which has now worn off, but partially because raisins of inferior quality containing both stems and grit, have been imported into the country. The Japanese, fond of their children and likewise sensitive to any deterioration in a product, in some cases ceased to consider raisins either as a good food or as a desirable purchase. Markets in Japan react quickly to downward changes in quality.

Apricots easily rank second in popularity among American dried fruits in Japan. These naturally appeal to the Japanese taste because of their similarity both in general appearance and flavor to the persimmon, which has so long been a prominent fruit in Japan. Apricots retail at 28 cents a pound. The importation of dried apricots was greatly curtailed in recent years because of new governmental regulations regarding the sulfur content in the dried fruit. Under the pure food regulations, importers found themselves confronted with large losses owing to their inability to dispose of the product which they had already purchased. Although these regulations have now been somewhat modified, thereby increasing the amount of sulfur permissible in the dried product, the amount that they may contain under the Japanese law is considerably less than that which the fruit normally carries. Although apricots are again coming into Japan in small quantities, it is recognized among importers that this is a hazardous enterprise, since the letter of the law might be enforced at any time. Indeed, the six customs districts in Japan, each under a separate director, are somewhat autonomous, so that the degree to which the law is enforced varies in the different districts. Importers are therefore exceedingly cautious in their purchases of dried apricots, living literally from hand to mouth, with the consequence that the amount of dried apricots brought into the country is materially reduced under that of former years.

Those interested in the business frequently inquired whether it would be possible to find another bleaching agent for apricots, or to

so reduce the sulfur content that it could come within the letter as well as the spirit of the law. Apricots are extensively used in pastries, but are not commonly used in the home because of lack of knowledge among housewives as to the proper method of cooking dried fruits. It was freely predicted that their use in the country will gradually increase unless the governmental regulations are of such a character as to permanently limit their introduction.

Prunes have had an increasing favor among a limited class of the Japanese people. The amount imported is still small, but it has nearly doubled in the past three years. In August, 1929, prunes in 1-pound cans retailed at 21 cents to 28 cents a pound. In general, the use of prunes is confined to those restaurants and hotels where the methods of cooking are understood and where there is a large foreign trade, and to places frequented by those who copy foreign manners. The general masses of the people, even those who can afford them, have not yet become familiar with the use of prunes in the diet. Although their recent increase may be somewhat due to a decrease in the importation of apricots, it is traceable, in part at least, to an increased appreciation of this fruit among the upper classes of the population. In all the conferences held, the question was discussed whether dried prunes might be used as a confection in a manner similar to that of raisins. If they could be popularized for eating dry out of hand without cooking, a large use for them might be developed. It was generally felt, however, that in this form they would probably not be as acceptable as the raisin because of the large size of the fruits, thus limiting the number in a package, and also because of the pit that the fruit contains.

Dried pears are almost unknown. The market for these in America and Europe has been adequate to consume those produced and no real introduction of them has been made in Japan. Dried peaches, as already discussed, are disliked because of the skin that adheres to the fruit. The lack of sweetness in the dried pear would probably not make it appeal to the Japanese taste either as a confection to be eaten out of the package or in the cooked form.

Except for raisins, which are largely imported by the Sun Maid Raisin Growers Association through their own representatives in Japan, dried fruits are generally ordered through agents of California packers on the basis of a c.i.f. price. Owing to a convention with Italy, dried fruits in tins, up to 25 pounds in weight, come into Japan under a reduced tariff, rather than under the luxury tariff of 100 per cent. In paper cartons these same fruits pay the 100 per cent tariff. Thus,

all dried fruits should be shipped into Japan in large tins and be repacked in the paper carton in that country.

Landing charges vary from $\frac{1}{2}$ cent to 1 cent a case. Warehouse handling charges average 1 cent a case. Lighterage charges from Yokohama to Tokyo average 94 cents a ton if dried fruits are to be shipped to the latter city. Normally, 7 per cent interest is charged on drafts on goods ordered on a c.i.f. basis.



Persimmons, pomegranates, and a hard round native pear are all popular fruits in Japan.

In dried fruits, the raisin has found its place among the people, which it is likely to hold. Prunes and dried apricots offer other opportunities for development and exploitation among the Japanese. They may be expected to appeal to the taste and liking of the people when properly made known to them. It must be realized, however, that these products cannot be merely offered for sale at American ports or even in the ports of Japan with any hope of a large increase in their demand. The majority of the people of Japan are unacquainted with them and must be brought to realize through trade promotion methods their healthfulness, pleasant taste, and general desirability. In addition, they must be taught to cook them properly and, finally and most important, must be able to obtain them at a

reasonable price, because of the low purchasing power of the classes to which they are offered.

With the exception of raisins which have already been extensively introduced, prunes and dried apricots would probably meet the easiest sale and be the most readily introduced among the middle and lower classes. This would require their adaptation to the small package and their introduction through a wide-scale campaign continued over a considerable period of time.

Trade Promotion Methods.—In Japan, price is a matter of the first consideration if any large number of people are to be reached. Appearance is almost as important. These two must be held in mind by all those who hope to make sales to the people at large.

Until the luxury tariff is considerably revised downward, California imported fruits face a handicap that is difficult to surmount. The doubling of their delivered cost constitutes a great barrier to their popularization. Moreover, most of the fresh fruits cannot be imported at all, under the plant quarantine laws. Finally, Japan has an extensive fruit production of its own and a considerable fruit-canning industry.

Nevertheless, despite all these handicaps, American fruit importations into Japan are considerable, although, with the exception of raisins, they have not yet been promoted or exploited by the expenditure of any considerable resources. Small 8-ounce or 1-pound cans of peaches appear to offer the most hopeful opportunity for trade promotion among the canned fruits under present conditions. Their retail price in Japan is relatively high. Every possible effort should be made to reduce that price.

Among the dried fruits, small packages of apricots and prunes would lend themselves to successful trade promotion. The packaging of dried fruits should be in a size sufficient to serve a family of four or five persons at one meal, thus keeping the size of the purchase down to the lowest possible initial investment. Generally speaking, the Japanese are lacking in thrift, particularly in these modern days. Their extravagance has been a matter of serious concern to the Japanese government. Streets in the cities are lined with small shops, many of which sell gimcracks, whose appeal is in their novelty rather than in their real utility. However, this extravagant quality is confined to small purchases. Generally speaking, anything that sells for more than 25 cents is a matter for serious concern, for bargaining, and for reflection. The small package would therefore have its appeal not only because of its usefulness but because of its relatively low cost. Prunes are now usually sold in bulk from the large

sized tin of either 5, 10, or 25 pounds, but it is probable that the small carton would be as attractive to the Japanese as it is to the American, and even though the unit cost per fruit may be higher than in larger packages or in bulk, the introduction of the product, at least in the beginning, would be best accomplished through a small attractive package.

Whether for canned or dried fruits, certain principles of trade promotion appear to be essential if success is to be achieved.



Fruit is sold in the big cities of Japan through modern wholesale markets.

Branches of the selling agency, keeping stocks of goods on hand, must be established in the large centers of population so that store-keepers may experience no difficulty in renewing their stocks and may be freed from the necessity of purchasing far in advance.

A small amount of the commodity to be promoted should be placed on consignment with prominent food stores in all towns of 25,000 or more throughout the Empire. Dummy cans and cartons for display purposes should be added to the real packages, sufficient to attract attention. These should be displayed for one year before any advertising or promotional campaign is conducted. People must be made familiar with the sight of the product and of the package.

After this, a campaign of demonstration and advertising should be made. High-class demonstrators should appear before cooking schools and women's organizations to show how the product is prepared, and to lecture on its desirable qualities. Other demonstrators

should be used in the department stores of the big cities. Such demonstrators should, before the audience, cook the dried fruit with Japanese utensils and allow the audience to sample the product, meanwhile lecturing on its high nutritive value and its desirability in the diet of the people as a health-giving measure. The Japanese, like the people of all other nations, are fond of their children and within the limits of their means are anxious to give them such foods as are healthful. The introduction of canned and dried fruits may be rightfully coupled with this appeal. The graduates of the higher schools and colleges have a large influence in Japan. Work tending to familiarize these students with the product will bear results in far greater proportion than similar efforts in America.

Finally, a campaign must be conducted through advertising and display. Advertising in Japanese newspapers is expensive. However, Japan has a large number of trade journals and women's magazines. These latter offer a strong opportunity for effective advertising among the purchasing class. The fruits must be made known to and be accepted by physicians, dietitians, and schools of home economics. Written testimonials should be secured from prominent authorities testifying to the high nutritive value of these products. Display in the form of posters and display cartons should be of small size, suitable for exhibit in very small shops and stores. The display carton, familiar in America, is an especially effective method of attracting attention in Japan. Bargain sales of small packages should occasionally occur. In the smaller towns, every effort should be made to move the goods by means of bonuses to storekeepers, reduced prices to consumers, and even of sample free packages given with grocery purchases above a certain amount.

A campaign such as outlined above will be expensive in its earlier stages. It would probably bring considerable result if skillfully managed according to the best American merchandising methods.

FRUIT MARKETS IN KOREA

The peninsula generally known to us as Korea is that part of the Japanese Empire officially known as Chosen. It comprises 85,000 square miles, being one-third larger than all New England. The population in 1927 was 19,137,698, of which 18,631,494, or over 97 per cent were Koreans and only 1,267 were Europeans, most of whom are missionaries. There are, however, in Korea 454,881 Japanese. These represent the government of the country, which includes the railroad operating throughout the peninsula. They also include a considerable number of Japanese settlers who have migrated to Korea since it came under Japanese control. Most of them are located in the towns. The only important city is Seoul (Keijo) which has a population of 316,000, of which 70,000 are Japanese. Fusan, at the lower end of the peninsula, is the port through which rail connection is made with Japan. Its population is 75,000, half of whom are Japanese.

Korea is primarily a farming country. Over 15,000,000 people live from the soil. In general, it is a mountainous land, denuded of its native forests. The narrow valleys are forced to support a large population. The chief crops are rice and soy beans. Much of the Korean rice is exported, rather than consumed on the farms where it is produced. The farmer grows rice but eats millet because it is a cheaper grain, the cheapest in the world.

The farming population of Korea in 1928 comprised 3,800,000 families or households, constituting 80 per cent of the population. Of the above number, less than 54,000 people, or 13,000 households were Japanese, Chinese, or other foreigners, the remainder being Koreans.* Collectively the farmers cultivate some 11,000,000 acres, of which 4,000,000 acres are devoted to rice fields and the remainder to dry or upland farms. Few of the fields are cultivated by the use of heavy machinery but are generally plowed with oxen and a wooden plow. Crops are harvested and threshed entirely by hand, in order to lower the expense in capital investment. The average number of acres farmed by a Korean family is five. Two-thirds of all the rice land is owned by a handful of landlords, and is rented to tenants. Approximately 45 per cent of the people are tenant farmers.

The standard of living and the purchasing power of the people as a whole is extremely low. Therefore the market for imported articles

*The Farmers and Farming Lands of Chosen. Report of Ransford S. Miller (1928).

is very limited. With the exception of 4 per cent of the farmers who own over half of the land and constitute the landlords of the country, the small farmers and tenants have extremely small incomes. It is estimated that the normal gross incomes of 90 per cent of the farmers of Korea ranges from \$50 to \$350 a year, with an average of \$140 per household.* Under present economic conditions a large proportion of the farmers are not even making costs of production and are forced to borrow money at usurious rates of interest so that many of them are hopelessly in debt.

The climate of Korea is much like that in Japan except that in the north the winters are longer and colder. In summer the temperature is high. Because the climate is drier than in Japan it is better suited to the cultivation of fruit, which here is of better flavor than in Japan.

Fruit in the Korean Diet.—The Korean lives largely on a diet of millet, supplemented by small amounts of vegetables, fish, and meat. The cooking utensils in the native Korean home are primitive. The homes of the people with their mud walls and thatched roofs have few conveniences. More of the time of the Korean housewife is consumed in keeping white the clothes of the head of the family than in preparing meals. In Korea, clothes assume a greater importance than food.

Among the upper classes rice takes the place of the cheaper grains and much larger quantities of meat are eaten. The whole diet becomes more elaborate among wealthy persons, food being served in the Chinese fashion. The upper classes are, however, so small in number that they create little collective demand for foreign foodstuffs.

Fruits are greatly liked by the Korean people and are consumed in summer in as large quantities as they can afford. Among the most popular fruits are apples, pears, mandarin oranges, bananas, peaches, grapes, cherries, apricots, persimmons, dates, walnuts, pine nuts, chestnuts, sweet melons, watermelons, and loquats. The above fruits and nuts are found in abundance in season. Many of them are grown locally and others are imported from Japan proper, Formosa, or the northern fruit-growing areas of China.

Fresh Fruits.—Korea grows considerable fruit. Its apples are famous in the Far East for their fine flavor and quality. It is the policy of the Japanese government to encourage fruit growing along its railway lines in Korea. Experimental stations have been established which distribute cuttings of desirable varieties through the country. Japanese and Chinese companies are planting large fruit farms. The area devoted to fruit may be expected to extend.

*Special Report. Ransford S. Miller, American Consul General, Keijo.

During the summer season, an abundance of local fruit of good quality is displayed in markets and on street stands at low prices. Fresh peaches of good quality were on sale in August at 5 cents for four peaches. Apples cost 3 cents each, and small watermelons sold for 15 cents. At small fruit stands, fruits of inferior quality were on sale at $\frac{1}{2}$ cent each. In the fall of the year, namely the months of September and October, fruits of wide variety are offered for sale in many food shops and at railway stations. The grapes and pears are of particularly good quality.

Canned Fruits.—Imported canned fruits are purchased only by the foreigners residing in the country and by a very few of the upper class of the native and Japanese population. Canned fruits are a commodity used only by the comparatively wealthy. Even some of the foreigners find canned American fruits too expensive to be used frequently on the family table. The increase in native fruit growing has led to a decrease in the consumption of imported canned goods. Many foreign families now preserve their own fruits in glass jars, as is commonly done in America. Some of the missions within the country have also actively undertaken the packing of canned goods in commercial cans. The purpose in mind is to develop a local fruit canning industry.

American canned fruits in No. 2 $\frac{1}{2}$ cans were on sale at prices shown in table 15. In smaller sizes they are practically unknown.

TABLE 15
CURRENT RETAIL PRICES, AUGUST 1929, AMERICAN CANNED FRUITS
SEOUL (KEIJO), KOREA (CHOSEN)
In No. 2 $\frac{1}{2}$ cans

Apricots	\$0.63	Pears .....	.56
Cherries .....	.77	Pineapples .....	.56
Peaches .....	.56	Fruit salad .....	.86

The tariff of Japan, with a few exceptions, applies to Korea. Thus, the luxury tariff of 100 per cent already discussed in the section devoted to Japan, applies with equal force to this part of the Empire. On the other hand, imports from Japan and certain parts of China are admitted free of duty. American canned and dried fruits on sale in Korea are obtainable only at about the same prices as in Japan. Competing Japanese canned fruits, admitted free to Korea, are displayed alongside American fruits at considerably lower prices. Japanese peaches and pears were 35 cents in the No. 2 $\frac{1}{2}$ can. In a 9-ounce can cherries were 14 cents.

A conference of dealers and others held at Seoul expressed the opinion that the smaller cans of fruit, namely those of 8 or 16 ounces, might create increased sales among foreigners and some of the higher-class Japanese and Koreans. Up to this time, only the No. 21½ can has been offered for sale. If any considerable sale of imported fruits is to be made, it must be through the Japanese and Korean population. Therefore, the unit in which the product is offered must be small, otherwise it cannot be purchased even by that small section of the population which is a potential market.

Dried Fruits.—Here as in Japan, the cooking of dried fruits is not generally understood. Among imported dried fruits, the raisin is the only one which has yet obtained any considerable hold even upon the Japanese population of the country. Certain native dried fruits are extensively sold in the markets. Dried persimmons and dates of Asiatic origin are known and liked but these in no wise compete with the American fruits.

California raisins were introduced only a few years ago as the result of a systematic sales campaign; thus they are a recent introduction into the food habits of both Koreans and Japanese. As yet, the Koreans do not use raisins in any appreciable quantities, since they are served only on special occasions with other dried fruits. The Japanese, however, are now using raisins as an additional condiment for their rice. They are also used by bakers in the making of cakes and pastries. About 6,000 cases of raisins are sold annually in Korea. The 15-ounce carton retails at 20 cents and the little 1¾-ounce carton at 4 cents.

Other dried fruits are sold only to foreigners and a few educated Koreans. Dried apricots retail at 37 cents a pound, pears at 37 cents, and prunes at 20 cents. Generally speaking, the use of prunes and apricots might be successfully promoted among the Japanese and other foreigners in the country, and possibly among a very small class of the Koreans who, by their larger incomes, are able to purchase such relatively expensive foodstuffs. But prunes and apricots cannot come into favor until the housewives among the upper classes of the country are familiar with the cooking of them.

Trade Promotion Methods.—As in Japan, prunes and dried apricots would appeal to the people more than any other dried fruits except raisins. Undoubtedly additional markets could be found in Korea for these commodities provided trade promotion methods were used. These would necessitate demonstrations before groups of Koreans and Japanese, showing how these foodstuffs are prepared

and eaten. It would necessitate cooking these products with the equipment now used in the average Korean house. Highly decorated and illustrated posters advertising these commodities should be supplied. This type of advertising material is scarce and is always treasured by the Korean merchant. In any advertising of American fruit products, such as on calendars, posters, display cartons, and other similar methods, the effort must be made not only to explain the high quality and palatability of the fruit, but also the methods of its preparation and use.

Dried prunes and apricots should be offered for sale in small containers and, if put up in the cheaper cartons, should only be stocked during the cool or winter months. The small can containing these products, it is believed, would keep through the warmer periods of the summer. Can openers should be made available to the Korean family. These might be used as a bait in trade promotion by giving can openers with a 1-pound can of dried fruit. Advertising materials should illustrate methods of opening canned fruits. Cans are very valuable and if they could be opened in such a way as to preserve the container for further household use this would also appeal to these people. If trade promotion were conducted in Korea, such efforts should be confined primarily to the popularization of prunes and dried apricots during the winter months.

In canned goods, the field will always be small but it is fairly evident that the small can either in the 8-ounce or 1-pound size would find added sale among the small number of consumers of canned fruits.

The great bulk of the population of Korea is not a potential market for American trade and will not be for a considerable time to come. While through trade promotion, markets can be increased, the standards of living and economic condition of the bulk of the population of Korea are such that the development of a large and important market for imported fruit—fresh, canned, or dried—appears impossible.

TABLE 16
DIRECT FRUIT EXPORTS FROM CALIFORNIA TO CHINA

Kind of fruit	1927		1928		1929	
<i>Canned</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Berries.....	17,373	3,062	27,322	5,034	13,431	2,291
Apples.....	18,073	1,446	12,775	1,604	10,833	1,522
Apricots.....	114,502	11,886	110,082	13,454	76,725	9,212
Cherries.....	285,703	43,363	361,400	55,430	108,779	17,473
Prunes.....	38,879	4,001	13,194	1,038	24,496	3,333
Peaches.....	235,514	22,548	347,596	34,601	276,878	30,623
Pears.....	176,425	21,314	180,787	23,097	122,809	17,799
Fruit for salad.....					79,824	13,082
Other canned.....	46,357	5,635	79,083	10,521	51,170	6,453
Pineapples.....	25,754	2,790	39,542	5,483	11,361	1,627
Jams, jellies, etc.....	128,605	33,651	157,812	36,237	67,611	20,746
Total.....	1,087,185	149,746	1,329,593	186,499	843,917	124,161
<i>Dried</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Raisins.....	3,455,136	247,362	6,980,563	363,545	6,455,467	356,910
Apples.....	84,307	11,980	73,275	10,780	56,363	8,619
Apricots.....	45,916	7,238	44,639	6,722	52,891	10,015
Peaches.....	30,561	4,357	41,164	5,919	21,798	3,128
Prunes.....	325,756	28,670	479,965	39,691	253,652	27,277
Pears.....					24,350	3,504
Other dried.....	68,324	9,719	99,549	14,926	25,267	3,829
Total.....	4,010,000	309,326	7,719,155	441,583	6,889,788	413,282
<i>Fresh</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>
Grapefruit.....	1,512	6,705	1,745	8,523	2,090	9,279
Lemons.....	11,953	78,289	11,704	91,247	12,077	88,079
Oranges.....	48,014	226,487	35,242	211,760	57,644	288,149
Apples.....	2,798	5,273	4,321	6,409	3,449	6,346
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Berries.....	400	65	400	70		
Grapes.....	144,044	11,240	232,413	14,611	206,979	17,904
Pears.....	500	25	7,843	467	7,285	685
Peaches.....			4,545	379		
Other fresh.....	2,899	217	23,789	1,539	25,163	2,035

FRUIT MARKETS IN CHINA

China, one of the great countries of the world, has long been a goal of trade and commerce for many nations. Its enormous population and their great combined buying power have brought to its borders for ages past, travelers, merchants, and armies in an effort to secure a share of the wealth of this great nation.

China is larger than Europe and nearly as large as the United States and Mexico combined. Its population is almost equal to that of Europe, is six times that of all South America, and is about one-fourth that of the entire world. China proper, with its three Manchurian provinces, covers 1,897,000 square miles. Its population is estimated at 436,000,000—a density of 238 persons per square mile. In addition to China proper, Mongolia, Chinese Turkestan, and Tibet, which have an additional 10,000,000 population, have been nominally a part of this empire. Certain sections of China are very densely populated, while others are but thinly settled. Six-sevenths of the population is located on one-third of its area. The population of the great Yangtsze basin is estimated at 200,000,000. In the delta of the Yangtsze River, an area of approximately 50,000 square miles, about equal in size to one-third of the State of California, there is a population of 40,000,000 persons.*

China is largely an agricultural nation, about 80 per cent of the population being engaged in farming. It has, however, many great cities. At least five of these have over a million population, and more than twenty have half a million or more. The foreign population of China is largely limited to certain treaty ports, and to a few places in the interior where missionaries and representatives of great American business organizations have settled. There are 12,503 Americans who have registered at the consulates as residents in China, the largest number of these being in Shanghai, where more than 3,000 Americans create a considerable colony.

Transportation facilities in China are meager, compared with western standards. There are only 8,500 miles of railroad lines, as contrasted with 265,000 in the United States. It is estimated that, including the paved streets in the various treaty ports, there are only 18,485 miles of roads capable of use by automobile.† Owing to China's poor railroad system water transportation is still largely used. Vast areas are without other highways than caravan routes, across which

*"China." U. S. Dept. Commerce Trade Promotion Series No. 38. J. Arnold.

† "Sales Territories in China." C. K. Moser (1929). U. S. Dept. Commerce.

goods and commodities from distant places travel slowly for thousands of miles. In still other regions, all goods are carried on the backs of men.

Despite the relative poverty of a large percentage of the Chinese population, the foreign trade of the country is enormous. China's total foreign trade, exports and imports is about \$1,400,000,000 a year. In 1928 the exports from the United States to China were valued at \$136,960,000, while imports from China to the United States were \$140,031,000, or a total foreign trade between the United States and

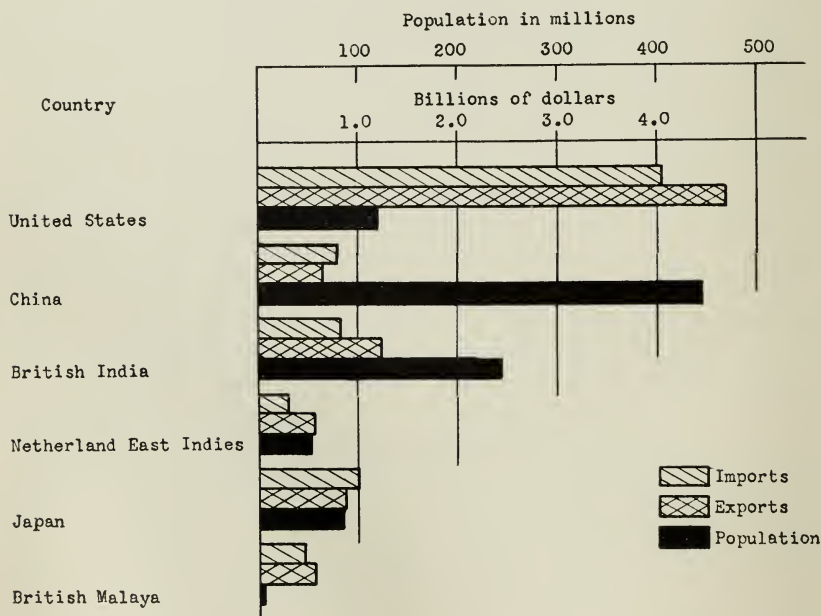


Fig. 17.—Foreign Trade and Population of Certain Countries, 1923–1927 Average.

China of \$276,991,000, this being approximately 20 per cent of the foreign trade of China. The same figure represents about 8 per cent of the foreign trade of the United States (see fig. 17).

Imported foreign foodstuffs find their chief market not among the Chinese population, but among the foreign residents of China, estimated at 251,000 persons. In 1924, China's net imports of canned, dried, and fresh fruits were valued at \$4,527,381. Of this amount, there came from the United States, fruits to the value of \$1,118,280 (see table 17). Thus, the value of imports of fruits into China from the United States was only about one-fourth of the total imported into

TABLE 17
CHINA'S IMPORTS OF FRUIT BY COUNTRIES OF ORIGIN, 1924

Imported from	Canned (table and pie)		Dried		Fresh		Not otherwise recorded	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Hongkong.....	661,734	64,360	18,232,000	1,005,267	6,276,000	147,719	21,926,000	894,998
Macao.....			1,713,000	121,378	2,846,000	58,483	4,003,000	117,908
French Indo-China.....	19,200	3,598	111,000	18,939	4,000	138	27,000	2,542
Siam.....					296,000	5,796	296,000	5,795
Singapore, Straits, etc.....	7,733	540	292,000	14,196	22,000	236	37,000	1,246
Dutch Indies.....				8				8
British India.....	9,200	1,592						
Turkey, Persia, Egypt, Aden, etc.....			30,000	5,805		53	4,000	390
Great Britain.....			23,000	2,720	4,000	461	22,000	2,624
Germany.....	1,600	336	11,000	2,196	1,000	47	10,000	1,897
Netherlands.....			23,000	2,802	1,000	55	18,000	2,453
Belgium.....								
France.....	2,800	255	7,000	1,030			5,000	656
Spain (including Gibraltar).....								
Italy.....	534	45	4,000	407	21,000	344	4,000	407
Russia and Siberia by land frontier.....					709,000	3,284	21,000	3,285
Russia, Pacific Ports.....			44,000	3,656		33,914	753,000	39,570
Korea.....	18,000	1,895	64,000	3,321	2,987,000	183,343	105,000	4,885
Japan (including Formosa).....	11,733	1,286	160,000	10,998	22,338,000	648,515	5,242,000	124,994
Philippine Islands.....	3,200	645	2,000	479	78,000	3,812	84,000	3,997
Canada.....				30	329,000	16,969	1,000	126
U. S. A. (including Hawaii).....	1,089,466	123,175	5,577,000	621,899	3,223,000	295,457	744,000	77,749
Australia, New Zealand, etc.....	4,133	464	44,000	5,305	2,000	249	1,000	190
Direct Gross Import.....			26,337,000	1,820,436	39,137,000	1,400,575	33,303,000	1,285,420
Re-exported Abroad.....	1,829,333	198,191	1,409,000	171,755	48,000	2,708	28,000	3,078
Total Net Import.....	1,829,333	198,191	24,838,000	1,648,681	39,089,000	1,398,167	33,275,000	1,282,342

that country. The actual imported amount of American fruit may have been somewhat larger, since some commodities from America find their way into China by trans-shipment from ports of other nations. These trans-shipped commodities are not traceable through the export records.

By 1927, China imported directly from the United States, canned fruits to the value of \$183,508, out of a total of \$298,140 imported into China from various nations (see table 18), the American imports

TABLE 18

CHINA'S IMPORTS OF CANNED FRUITS (TABLE AND PIE) BY COUNTRIES OF ORIGIN
1925-1927

Imported from	1925		1926		1927	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Hongkong.....	656,533	52,043	641,200	45,802	579,052	38,416
French Indo-China.....	16,267	2,477	23,866	2,726	10,266	1,231
Singapore, Straits, etc.....	443,867	21,902	837,733	40,580	894,778	40,727
Dutch Indies.....	1,067	76			133	6
British India.....	9,600	1,658	4,800	924	12,266	1,754
Turkey, Persia, Egypt, Aden, etc.....					267	71
Great Britain.....			8,400	864	8,933	1,016
Germany.....	3,733	380	14,533	1,273	2,533	478
Belgium.....			2,667	294		
France.....	1,333	200	2,000	213	3,467	548
Italy.....	933	124	533	122		
Russia, Pacific Ports.....	1,066	102	31,467	2,837	2,667	248
Korea.....	9,867	1,090	25,000	2,467	21,199	1,870
Japan (including Formosa).....	87,467	8,627	75,200	9,650	179,596	17,819
Philippine Islands.....	800	195	667	78	121,330	9,406
Canada.....			1,600	164	12,266	1,339
U.S.A. (including Hawaii).....	1,232,533	124,837	1,534,132	155,858	1,936,352	183,508
Australia, New Zealand, etc.....	5,734	502	3,334	330		
Direct gross import.....	2,470,800	214,213	3,207,132	264,182	3,785,105	298,437
Re-exported abroad.....	8,534	815	2,000	107	3,066	297
Net imports from abroad.....	2,462,266	213,398	3,205,132	264,075	3,782,039	298,140

thus being over 60 per cent of the total imports of canned fruit. In 1929, the direct exports of canned fruits from California to China were valued at \$124,161 (see table 16). Of all nations in the Far East, China ranks first in its total consumption of California canned fruits. Among these, peaches had first place. The value of these exported from California to China was \$30,623. Canned pears came second with a value of \$17,799. Canned cherries were the third most popular commodity, these being exported to the value of \$17,473.

China also ranks first as an import market for dried fruits from California to the Far East. In 1929, California exported directly to

China 6,455,467 pounds of raisins, with a declared value of \$356,910. California raisins constitute the great bulk of all the raisins imported into China (see table 19).

TABLE 19

CHINA'S IMPORTS OF CURRANTS AND RAISINS, BY COUNTRIES OF ORIGIN, 1925-1927

Imported from	1925		1926		1927	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Hongkong.....	655,850	91,000	477,455	54,512	812,113	82,988
Macao.....	21,999	2,713	15,600	1,437	18,400	1,618
French Indo-China.....	39,066	8,674	36,532	3,948	32,933	3,020
Siam.....	7,333	835	533	51		
Singapore, Straits, etc.....	33,866	6,440	25,599	4,243	48,265	8,096
British India.....	27,333	4,449	7,733	1,439	11,866	2,218
Turkey, Persia, Egypt, Aden, etc.....	7,066	744	7,600	1,009	12,533	1,145
Great Britain.....	2,400	387	4,400	603	4,933	789
Germany.....						
Netherlands.....	133	12				
France.....	667	167			1,067	408
Spain (including Gibraltar).....	133	15				
Russia, Pacific ports.....					253,460	31,140
Korea.....	2,800	564	8,800	1,678	12,933	1,961
Japan (including Formosa).....	64,132	3,285	34,266	2,138	23,466	1,551
Philippine Islands.....	133	16	267	36	400	21
U. S. A. (including Hawaii).....	2,978,726	267,108	4,426,823	346,099	3,917,902	306,032
Australia, New Zealand, etc.....	57,732	7,003	54,265	6,182	70,265	7,990
Direct gross imports.....	3,899,369	393,412	5,099,873	423,375	5,220,536	448,977
Re-exported abroad.....	1,234,236	117,139	1,391,699	110,199	1,219,703	97,558
Net import from abroad.....	2,665,133	276,273	3,708,174	313,176	4,000,833	351,419

In fresh fruits, China is California's second largest export market in the Far East, being outranked only by the Philippine Islands. Oranges are the most important factor in our fresh-fruit exports to China, amounting in 1929 to 57,644 boxes valued at \$288,149. This, however, is only a small proportion of the Chinese imports of oranges, far larger amounts coming from Japanese ports (see table 20). Our imports of lemons into China in 1929 amounted to 12,077 boxes valued at \$88,079. This constituted the bulk of the lemon imports into China (see table 21). Apples are one of the important fresh fruits brought into China. The imports of these are valued at almost \$400,000 (see table 22). Of this amount, in 1927 \$61,772 worth came from the United States. Most of these were supplied by Oregon and Washington. The direct exports from California to China in that year amounted to only \$5,273. Almost two-thirds of the imported Chinese apples came from Korea, less than one-seventh arriving from the United States. The fresh grape exports to China are relatively small. We shipped eight times as many to the Philippines.

China has a considerable fresh fruit production in certain sections of that great country. The northeastern provinces known as Manchuria are an exceptionally good fruit region. Peaches, apricots, and pears are there grown in considerable volume; native peaches are

TABLE 20
CHINA'S IMPORTS OF ORANGES BY COUNTRIES OF ORIGIN, 1925-1927

Imported from	1925		1926		1927	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Hongkong.....	492,655	19,533	38,532	1,867	285,860	18,853
Macao.....	134	9				
French Indo-China.....	800	42	667	47	933	48
Siam.....	1,333	21	533	10		
Singapore, Straits, etc.....			1,333	39	267	24
British India.....					2,533	26
Turkey, Persia, Egypt, Aden, etc.....	9,866	664	17,333	924	32,266	1,533
Germany.....						
Italy.....			5,200	120		
Russia and Siberia by land frontier.....	533	30				
Russia, Pacific ports.....	1,021,841	90,129	1,981,417	104,051	4,716,815	253,621
Korea.....	764,781	42,302	503,054	26,883	592,252	28,706
Japan (including Formosa).....	24,035,532	766,647	35,022,858	1,003,999	27,118,389	784,911
Philippine Islands.....	400	30	1,600	32	4,800	326
Canada.....	10,933	1,186	400	62	400	61
U. S. A. (including Hawaii).....	1,662,225	158,352	3,458,714	282,059	3,235,652	276,513
Direct gross imports.....	28,001,033	1,078,945	41,031,641	1,420,093	35,990,167	1,364,622
Re-exported abroad.....	17,866	677	14,266	860	11,866	997
Net import from abroad.....	27,983,167	1,078,268	41,017,375	1,419,233	35,978,301	1,363,625

TABLE 21
CHINA'S IMPORTS OF LEMONS, BY COUNTRIES OF ORIGIN, 1925-1927

Imported from	1925		1926		1927	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Hongkong.....	5,198	517	4,207	446	6,187	652
Singapore, Straits, etc.....	8,167	275				
Turkey, Aden, Persia, Egypt, etc.....			22,275	873		
Great Britain.....	7,672	263				
Italy.....	4,455	254	5,940	433	18,562	1,438
Russia, Pacific ports.....	1,732	235	1,980	226	5,198	565
Korea.....						3
Japan (including Formosa).....	3,713	349	5,692	439		16
Philippine Islands.....	248	21			248	75
Canada.....	4,208	416	743	90	495	
U. S. A. (including Hawaii).....	768,735	81,079	1,041,728	95,791	863,775	85,571
Direct gross import.....	804,128	83,409	1,082,565	98,298	894,465	88,320
Re-exported abroad.....	11,633	1,187	11,633	1,054	28,215	2,783
Net import from abroad.....	792,495	82,222	1,070,932	97,244	866,250	85,537

TABLE 22
CHINA'S IMPORTS OF APPLES, BY COUNTRIES OF ORIGIN, 1925-1927

Imported from	1925		1926		1927	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Hongkong.....	18,267	907	63,731	2,625	57,065	2,978
Macao.....					667	36
French Indo-China.....	400	80	1,067	226	667	69
Great Britain.....						
France.....			267	17		
Russia, Pacific ports.....	686,516	55,689	297,859	20,404	132,663	9,735
Korea.....	2,930,193	149,208	5,067,873	281,593	4,427,222	228,244
Japan (including Formosa).....	717,315	32,204	1,323,700	56,568	1,342,766	48,126
Canada.....	410,390	28,740	447,989	29,062	559,853	37,994
U. S. A. (including Hawaii).....	1,403,565	90,408	2,546,470	155,707	972,376	61,772
Australia, New Zealand, etc.....				4		
Direct gross import.....	6,166,646	357,236	9,748,956	546,206	7,493,279	388,954
Re-exported abroad.....	2,933	188	35,599	2,133	4,933	212
Net import from abroad.....	6,163,713	357,048	9,713,357	544,073	7,488,346	388,742

also grown in the lower Yangtze Valley. In the vicinity of Chefoo, a port on the northern coast of the Shantung peninsula, a considerable fruit industry has been recently developed. Here the growing of apples, pears, and grapes has become of commercial importance, so that fruit has spread along 30 miles of coast line on land previously used for the growing of trees for fuel. Customs statistics indicate that the fresh fruit exports from Chefoo approximate 8,000 tons a year. About 60 per cent of these are apples, the balance being made up of apricots, peaches, grapes, plums, and cherries. The example of the Japanese in fruit growing in the leased territory of Kwantung has spread to many Chinese farmers in the neighboring territory of China.* Definite statistics on the fruit industry of China are of course lacking, because no census or similar government survey has ever been made by that nation.

Because of the great size and diversity of China, its markets for American fruits are discussed in the following pages under four divisions: Manchuria, Northern China, Central China, and Southern China.

*Special Report, U. S. Dept. of Agriculture, Bureau Agr. Econ. P. O. Nyhus.

TABLE 23

DIRECT FRUIT EXPORTS FROM CALIFORNIA TO KWANTUNG

Kind of fruit	1927		1928		1929	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
<i>Canned</i>						
Berries.....	60	14	540	100	398	93
Apples.....	90	7	74	11	1,040	125
Apricots.....	6,057	749	7,955	921	16,825	2,033
Cherries.....	9,252	1,418	29,544	4,520	18,139	2,796
Prunes.....	372	49	150	30	120	28
Peaches.....	14,808	1,427	51,100	4,636	82,792	8,282
Pears.....	6,011	753	13,700	1,785	11,464	1,616
Fruit for salad.....					24,216	3,614
Other canned.....	1,365	170	8,254	1,032	4,070	560
Pineapples.....	3,765	425	4,395	540	9,857	929
Jams, jellies, etc.....	8,870	1,974	18,580	3,522	11,207	3,434
Total.....	50,650	6,982	134,292	17,097	180,126	23,510
<i>Dried</i>						
Raisins.....	367,095	27,219	816,554	39,275	939,690	45,566
Apples.....	13,675	1,442	31,900	4,029	9,750	1,467
Apricots.....	4,597	785	4,046	648	2,650	441
Peaches.....	2,897	342	5,675	586	2,525	331
Prunes.....	22,846	1,716	61,862	3,924	22,651	2,336
Pears.....					2,125	304
Other dried.....	37,251	2,926	29,750	2,105	3,650	522
Total.....	448,361	34,430	949,787	50,567	983,041	50,967
<i>Fresh</i>						
Lemons.....	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>
Oranges.....			153	806	85	588
Apples.....			10	14	300	1,950
Other fresh.....	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>

MANCHURIA

Manchuria, which comprises the three northeastern provinces of China, is a great area similar in many respects to portions of our own central west and to the prairie provinces of Canada. Because of its unique character it is distinct from other sections of China.

The area of Manchuria, 365,000 square miles, corresponds roughly to the size of California, Oregon, Washington, and Ohio combined. The population is about 25,000,000. Generally speaking, Manchuria is a level country of great fertility, which is but sparsely settled and into which migrations of Chinese were forbidden during most of the Manchurian dynasty. In more recent years, Chinese have been flocking to Manchuria at the rate of 800,000 to 1,200,000 per year, so that they are rapidly settling the country. Because these Chinese are progressive members of their race and because of their relatively large land holdings on the new and fertile plains of Manchuria, they are richer than their brethren further south where the land holdings are small and the incomes consequently meagre.

Manchuria has two great cities, Mukden in southern Manchuria, which has a population of about 200,000, and Harbin in the north with a population of about 300,000. It is estimated that in Harbin there are almost 100,000 Russians. Thus, that city has the largest white population of any in eastern Asia. Some of these Russians migrated here before the war, but the majority fled into northern Manchuria to escape the Bolshevist menace and now remain in China expatriated from their native land. Southern Manchuria is served by the South Manchurian Railroad which has 681 miles of track under Japanese ownership and control. The railroad and the area immediately surrounding it is policed by the soldiers of the Japanese Empire. Northern Manchuria is crossed by the Chinese Eastern Railway, 1,078 miles long, which is under joint Russian and Chinese management. Thus, Manchuria possesses no through railway line with a unified supervision or ownership.

The chief products of Manchuria are soy beans and grain sorghums. These provinces produce 70 per cent of all soy beans grown in China and are the largest growers of this product in the world. Wheat is the second crop. Other cereals such as millet and corn are raised in large quantities.

Laborers in Manchuria are paid about 50 cents a day for common and 75 cents a day for skilled labor. In north Manchuria the Russian

population of Harbin, together with that of other towns in that territory, has created a considerable demand for European foodstuffs. Owing, however, to the declining purchasing power of these Russians, and to the increasing wealth of the Chinese, the Russian demands are becoming of less importance while those of the Chinese are growing greater. Generally speaking, the Russians in northern Manchuria have not been successful in their financial undertakings, while the Chinese occupied in agriculture and trade have been able to outstrip their white brethren. Some Chinese who came into Manchuria as poor coolies have become extremely rich. Agricultural lands cultivated in large areas and farmed with American power machinery have brought wealth to those who have the ability and the necessary capital to undertake such extended enterprises. The Russians on the contrary, are generally without capital and are found as clerks in the stores, drivers of cabs, servants and doorkeepers in hotels and restaurants, and as beggars in the streets. The white race in Manchuria has experienced a steady decline of prosperity in face of the increasing wave of Chinese industry, thrift, and progressiveness. Thus, the market for imported products among the Russians is lessening. If the demand for imported products is to be maintained or increased, it must be adapted to the Chinese who already possess a large share of wealth in the territory and who undoubtedly will possess a still greater share in the future.

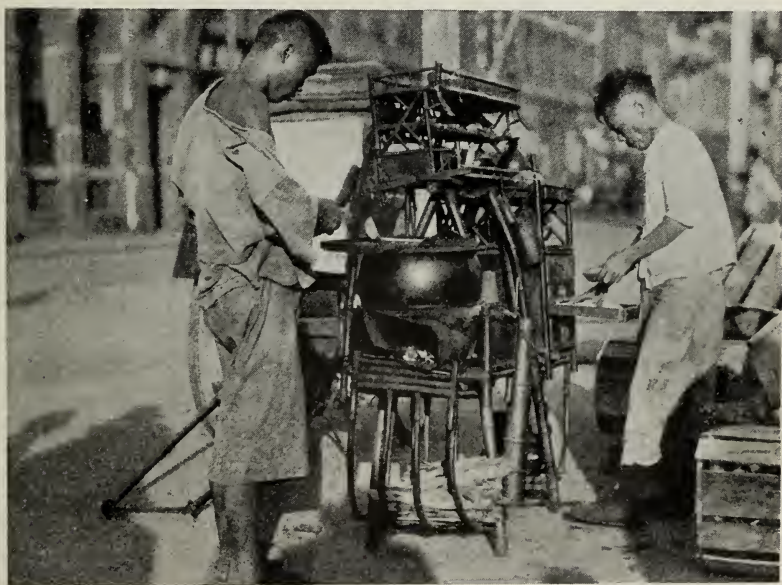
In southern Manchuria more settled conditions pertain since there the Chinese, working northward, migrated earlier, and since in that territory the Japanese have a predominant control of transportation and, to a certain degree, of government. Although a Chinese war lord is the titular power in the country, the Japanese are the predominant influence through their control of the railway and their leased territory.

The whole of Manchuria for recent years has been a separate political entity loosely affiliated with the general government of China. It has currency, taxes, duties, and regulations of its own. Those conversant with the territory are by no means certain that settled conditions can be expected in the future. If quietude prevails, the great potential wealth of these provinces, based upon their fine level agricultural lands and progressive settlers, may be expected to make Manchuria one of the wealthiest portions of China and to create here a higher standard of living and therefore a greater purchasing power than elsewhere prevalent in the nation.

Fruit in the Manchurian Diet.—In northern Manchuria two races live side by side with different customs and traditions. A large part

of both populations is of recent migrations so that their habits of food and dress are still those of the regions from whence they came.

The Chinese, who are the largest element of the population, came from the poorer classes of farmers, laborers, and coolies. Many of them migrated from those provinces in northern China which were devastated by floods, famines, and wars. On the new lands of Manchuria they have found greater prosperity. To a great degree, however, they still follow the customs of food to which they were habituated. Some spend a portion of their newly gained prosperity on the purchase of expensive luxuries. Most of them, however, vividly remembering the days of famine and stark poverty, with customary Chinese thrift either hoard the money they have gained or invest it in enlarging their enterprises. Among the poorer people, the diet is based upon millet and other cheap grains that are locally grown. Wealthier classes eat imported rice. With these cereals are served cooked vegetables, bean sprouts, and diced meats. Fruit is not normally eaten with meals except at feasts and banquets. If able to afford it, the Chinese use various condiments. Pickles, dried fish, fried powdered pork, melon seeds, and nuts all add variety to the Chinese diet. Here, as elsewhere, the Chinese are fond of their native dried fruits which are prepared in a semi-candied form and eaten between



Numerous street **restaurants** serve Chinese laborers. Many persons eat all of their meals at such **stands**.

meals as a confection. Whether because of their contact with the Russians or because of the scarcity of the native Chinese condiments to which they were accustomed, some of the Chinese in Manchuria eat and like prunes. A few of the Chinese women cook these in the same manner as is done in America. Raisins here, as elsewhere in China, are used as a confection.

The Russians live as nearly as possible in the same manner to which they were accustomed in the homeland. In all the cities of Manchuria there are many Russian restaurants and hotels where typical food of the land is served to those who come from European and Asiatic Russia. Europeans and sophisticated Chinese patronize these hotels and restaurants. Many of the Russians have become so poor, however, that they are unable to live as in former days. They are thus forced to the cheapest Russian foodstuffs or to the numerous Chinese street restaurants that serve the Chinese laborers. Those Russians who have prospered eat quantities of fresh and canned fruits. Prunes and raisins are popular and are cooked with rice in a favorite Russian dish. Jams and jellies are used frequently and abundantly.

Fresh Fruits.—A large volume of locally grown fruits come into the markets of Manchuria during the summer season. Fruit growing has been encouraged by the Japanese in the leased territory of Kwantung adjacent to southern Manchuria. The practice of growing fruit has spread beyond this territory into Manchuria itself so that a considerable volume of apples, pears, plums, grapes, and cherries are now planted in southern Manchuria and its adjacent territory. Apples and pears are in full bearing. Peaches, grapes, and plums, planted later, have not yet come into production. While the exact acreage of these fruits is not known, it is estimated that 10,000 acres have recently been planted in the leased territory of Kwantung, and an additional 10,000 acres in the vicinity of Mukden.

Fresh fruits from California thus find a competing market in Manchuria with many fresh fruits grown in areas south of the two large centers of population. These native fruits are abundant during the late summer and fall months. Many street markets, food stores, and vendors at railway stations offer fresh fruits for sale at low prices. At an ordinary fruit stand on the street, pears of three different varieties may be found selling for 3½ cents each, pomegranates at 7 cents per pound, apples at 5 cents per pound, and Canton oranges at 11 cents per pound. It is true that these fruits are not always free from bruise marks or worms, but they are sufficiently low in price to have a ready market.

By far the largest amount of imported fruit comes from Japanese territory in Korea, Formosa, and Japan proper. The following statistics illustrate this fact.

TABLE 24
NET IMPORTS OF APPLES AND ORANGES INTO MANCHURIA*
Figures in thousands of pounds

Year	Chinese		Japanese				American		Total	
			Apples		Oranges					
			From Korea	From Japan	From Japan and Formosa	From Russian Pacific Ports (Japanese)				
	Apples	Oranges					Apples	Oranges	Apples	Oranges
1924	2,000	1,900	2,300	160	14,800	.....	5	40	4,500	16,700
1925	2,400	1,100	2,930	1,050	21,400	1,020	5	30	6,400	23,600
1926	2,130	1,600	4,930	1,130	31,200	1,980	5	90	8,200	34,900

* From report of Paul O. Nyhus, U. S. Dept. of Agriculture, 1928. Data noted as from unpublished reports of Chinese Maritime Customs.



In the summer and autumn vendors at railway stations in Manchuria and northern China offer native fresh fruits at low prices.

Grapes from Shantung province come to the market throughout the year and rule at a high price during the festival season in the winter. Before the war, large amounts of fresh fruits reached this territory from southern Russia, shipped through without rehandling to Harbin. Such traffic has, of course, long since ceased.

In northern Manchuria, oranges and lemons are the only fresh fruits from America which are regularly on sale. California oranges of

very small size and poor quality, evidently culls, are sold at retail for 6 cents each. Frequent complaint was made by foreign residents and well-to-do Chinese of the very poor quality of California oranges received, although these are stamped with the trade name of a well known brand. A limited amount of high class oranges would find a ready sale at good prices. American apples and grapefruit occasionally come into northern Manchuria but the spoilage is so great that these are seldom attempted. There is no refrigeration on either the South Manchurian or the Chinese Eastern Railways. Fresh fruits from refrigerator ships are unloaded at Dairen or Vladivostok for trans-shipment to the inland cities of Manchuria. Inevitably a large amount of these fruits spoil in transit due to the delays in shipment from one railway to another and particularly to the unsettled conditions of the political and railway control. During the long severe winters with extremely low temperatures, fruit frequently freezes en route and thus becomes a total loss. Such fruit therefore as comes into the market is largely handled by Chinese dealers on a speculative basis. Retail stores buy from them at a higher price per dozen or hundred and pay the increased cost in order to avoid larger losses due to spoilage. Fresh grapes come into the Harbin market from southern Manchuria, but these are largely of poor quality. Fresh grapes packed in cork or sawdust would have a relatively good sale with good prices provided agents in the territory saw that they were quickly shipped from Dairen to the point of delivery.

In southern Manchuria much the same conditions pertain. Mukden obtains a large amount of native fresh fruit from Shantung during the season. The Japanese markets of Mukden display quantities of pears, peaches, and grapes of excellent quality which are sold at exceedingly low prices. Large size pears of the Bartlett type sold for five for 20 cents. Excellent grapes of unknown varieties but resembling Tokays and Emperors sold from 12 cents to 25 cents a pound. Peaches of fair size and quality sold at six for 20 cents. Beside these excellent fruits were displayed California oranges of the poorest quality and condition. These, however, are so prized that they sell in the markets beside the native fruits at the general rate of 6 cents each. The orange market is steady and there is a demand for a better quality of fruits. The Chinese in Manchuria at present do not purchase many oranges but they are treasured by foreigners. Lemons found upon the markets are of good size and quality, retailing at 6 cents each, but their market is limited.

Fresh fruit from California is usually ordered by Chinese dealers at c.i.f. prices from agents of California exporters. Usually fruit is

trans-shipped at Japanese ports to either Dairen or Vladivostok where it must proceed without refrigeration to its destination in northern or southern Manchuria. Duty into Manchuria is 10 per cent. Freight rates on the South Manchurian Railroad are \$3.12 per ton in carload lots. There are also the usual harbor dues, handling charges, and fees of forwarding agents to be paid. Usually agents estimate all these charges from ship to destination at \$1.00 per box in southern Manchuria and \$1.50 per box in northern Manchuria.

Potentially, the markets for American fresh fruit in Manchuria are possible of material increase. Practical difficulties are, however, in the way. The large consuming centers are distant from Pacific ports. The brief summers are hot, and the winters are long and very cold. Refrigerated fruit unloaded at the ports is likely to decay in summer and freeze in winter because there are no refrigeration facilities on the railroads and rapid transportation is seldom experienced. The railway control in northern Manchuria is often chaotic.

Nevertheless, imported citrus fruits are highly prized. California oranges are already in these markets but of such poor quality that they would never be purchased if anything better were obtainable. Oranges of higher quality throughout the year, and grapes for the holiday season, offer the best opportunity for the expansion of the markets for fresh fruits.

Canned Fruits.—To the Chinese in Manchuria canned fruits are a decided luxury reserved for special occasions as at dinners and feasts. On these occasions they are not eaten with chopsticks but with spoons as a dessert. Therefore, fruit cut in halves rather than in slices is in most favor.

The Chinese are liberal in making presents to their friends on holidays and feast days. These gifts often are baskets containing canned fruits, canned fish, canned meats, cakes, cookies, candied fruits, nuts, and bottles of wine. Gift packages contain even numbers of items, two, four, or six. Thus, very expensive gifts may include six cans of fruit.

The canned fruits presented as gifts are, however, more likely to be of Chinese than of American manufacture. Most of these Chinese canned fruits come from southern China, although some are packed in northern China. The native canned fruits are of exceedingly poor quality but since they sell at a very low price and have a gorgeous label they make as much show as American fruits at far less cost. Usually the recipient of the gift has as little appreciation of quality as the giver and thus is as much pleased to receive two tins of Chinese fruit as he would be with an equal number of those made in America.

The Chinese cans are filled one-third or one-fourth with fruit. The remainder of the can contains a very thin syrup. There is usually as much fruit in an 8-ounce can of American fruit as in a No. 2 can of Chinese. Necessarily, the 8-ounce can appears much smaller and has less liquid. The fruit, however, is of far better quality. Frequently the recipient of a gift of canned fruit never opens it but saves it as a treasure to be handed on to someone else when it becomes his turn to make a present. Thus, these cans of fruit, Chinese or American, may be passed from hand to hand until the label becomes too disfigured and the can too rusty to serve this purpose. They are then eaten with gusto, the sweet liquid being especially appreciated.



China has a large canning industry of its own. Chinese canned fruits sell extensively because of their low price. Progressive marketing methods have been used to make them popular.

Chinese canned fruits are usually manufactured in the No. 2 can. They sell at varied prices but in general are obtainable at the rate of four cans for a local dollar, equivalent to 40 cents in American currency. Prices per can for Chinese canned fruits in Mukden and Harbin in September 1929 were as follows: apples, 9 cents; apricots, 16 cents; bananas, 9 cents; cherries, 16 cents; grapes, peaches, pears, and plums, 12 cents; sweet melon and watermelon, 9 cents.

Among foreigners, including the Russians, Chinese canned goods naturally find no popularity. Chinese of the upper classes also prefer the American canned goods and are willing to pay the price to get them. However, the great masses of the people are not discriminating in their tastes. They eat canned fruits so seldom that any commodity in a real tin can is both a luxury and a novelty.

American canned fruits in the No. 2½ cans are on sale in the large cities of northern and southern Manchuria in most high class stores. Imported canned fruits are a luxury, enjoyed only by the well-to-do classes, so that those who can afford to buy American canned goods want only the best.

Canned cherries rank first in preference, among the Chinese in Manchuria, and fruit salad second. Since these are both higher in price than other fruits their sales are not as large as the preferences indicate. Canned peaches rank third in popularity and first in sales. Canned apricots are liked but are not well known. Pears are not popular. Prices at retail are shown in the following table:



The cans of Chinese fruits are filled one-third or one-fourth with fruit. The remainder of the can contains a thin syrup.

TABLE 25

CURRENT TRAIL PRICES, MANCHURIA, SEPTEMBER, 1929

AMERICAN CANNED FRUITS

In No. 2½ cans

	Mukden	Harbin
Apples	\$0.35	\$0.35
Apricots .....	.32	.35
Cherries .....	.46	.46
Peaches .....	.34	.32
Pears .....	.36	.40
Fruit salad .....	.49	.49

American canned fruits are ordered through agents of California packers on the basis of c.i.f. prices. Goods are shipped direct to Dairen or Vladivostok, or may be trans-shipped at Shanghai to these ports. Dairen is a free port of entry but on shipment into China a

duty of $12\frac{1}{2}$ per cent must be paid. Railroad freight rates from Dairen to Mukden are \$3.12 per ton in carload lots. At Dairen it is necessary to employ a forwarding agent and to pay handling and transfer charges. All these costs, including freight, usually aggregate about \$1 to \$1.50 per case.

Canned American fruits are well distributed in Harbin and Mukden but are not usually found in the small towns. To create larger markets it would be necessary to convince the Chinese that the American package contained a commodity of better quality than the Chinese tin. To do so would require only that dealers and customers have an opportunity to see the contents of both cans. So long as only the labels are evident they both are of equal standing. If the contents of both cans were known, the Chinese can and the giver thereof would lose "face."

Furthermore, to develop large markets for canned fruits in Manchuria, the price of a single purchase must be reduced. To accomplish this result, either the small can must be successfully introduced or the overhead costs on the present size must be radically lowered.

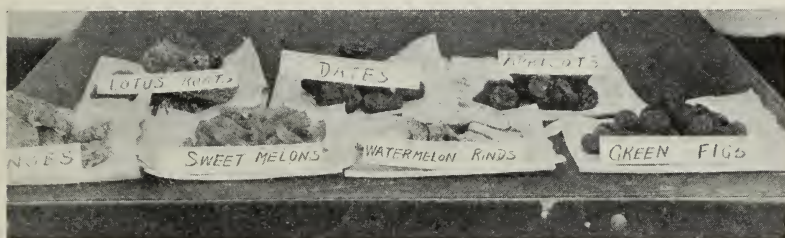
In addition thereto, available stocks of canned goods must be placed at strategic points so that the present indent system will pass away and for it will be substituted a system of branch distributing agencies from which merchants can obtain stocks on short notice.

The present market for canned goods is relatively small. The local political situation during the immediate past has mitigated against even the customary sales, since businessmen have been unwilling to invest large amounts in canned goods or in any other imported commodity when trade may be entirely disrupted for a considerable length of time. The sale of American canned fruits depends partially upon the price but partially also upon the general prosperity of the country which has been depressed by recent wars and changes in political status. Any large increase in markets in Manchuria can only come through larger sales to the Chinese. The great European market for imported canned goods in Harbin, so frequently discussed in relation to its large Russian population, is largely a myth.

Dried Fruits.—Chinese dried fruits are popular in Manchuria among the Chinese and are sold in large quantities. These dried fruits are treated with honey or sugar and are looked upon as a confection. Since Chinese children, like those of other nations, are fond of sweets these semi-candied and dried fruits are particularly enjoyed by them. The dried fruits from America, which are not treated to increase their sweetness, are looked upon as a different product. The Chinese dried

fruits are numerous. They include dried apricots, plums, oranges, Hawthorne berries, persimmons, citron, lotus roots, and others. These sell for 12 cents to 20 cents per pound.

Among the Russians dried fruits from America are extensively used. They prefer, however, the kinds and types of dried fruits to which they were accustomed in Russia, although these would not seem equal in quality to an American. In 1928 large shipments of prunes were received in northern Manchuria from the Ukraine. These traversed the long route from southern European Russia across Siberia. The shipments represented an attempt on the part of the Russian government to reestablish an outlet for fruits grown in southern Russia among the peoples of the Far East. Such shipments



Many kinds of Chinese dried fruits are sold in Manchuria and northern China.

probably cannot be considered as a permanent economic possibility but only an incident of Russian trade promotion made possible through a special low rate on the Russian Government Railways. Dried fruits from Persia and Turkestan were also brought into this northern market, finding ready sale among the Russians since they were familiar with them in the old days of prosperity before the war.

California raisins in the small $1\frac{3}{4}$ -ounce package are a familiar sight all over Manchuria and are the only California fruit in general use. They are shipped in 25-pound boxes from the United States to an agency in Harbin which is occupied solely in the distribution of this fruit. There they are repacked in a display carton which goes to the dealer accompanied by posters and illustrated menus which show methods of using raisins in Chinese dishes. About 25,000 cases of these raisins per year are sold in Manchuria.

In popularity, the second dried fruit is prunes; dried apricots are third. Prunes are in common use among the Russian population in Harbin and northern Manchuria but are not so freely used by the Chinese. Dried prunes and apricots would have a much wider use in this part of China if they were made familiar to the people through trade promotion methods.

In considering the dried fruit market possibilities, the outlook is more favorable than that for canned fruits. However, to realize a larger market, considerable money and effort must be spent in developing the trade. The Chinese are not accustomed to cooking dried fruit but, owing to their custom of eating native dried fruits, a market lies dormant for prunes and possibly for figs as a confection to be eaten in the dried form without cooking. Prunes, if properly advertised, could be sold in the favorable seasons of the year in small cartons of a half dozen or dozen fruits, or even in a small envelope containing possibly only one or two fruits.

The possibility of increasing the Chinese consumption of dried fruits in Manchuria depends largely upon making the product known to these people, and upon offering them for sale in small packages that may be purchased for a few cents. Once the Chinese housewife is taught to cook dried fruits, such as prunes, they will be sold in larger amounts. The small package is one of the best mediums to acquaint the Chinese with these products.

Trade Promotion Methods.—With the exception of the raisin, California fruits in canned, dried, or fresh form have not been promoted or advertised in Manchuria. A general unfamiliarity with the product is here one of the most serious short-comings in the marketing of California fruits among the Chinese. Many dealers know very little about packaged fruits, few having ever seen or tasted them. Owners of retail stores and clerks have little conception of the appearance, taste, or quality of the fruits inside the cans that they sell. They are probably almost as unfamiliar with the dried fruits in a cooked form.

The success of the raisin in Manchuria has been due to several factors, one of which is that time, effort, and money have been spent upon its promotion. Coupled with this has been the use of a small package that brought this fruit within the possible purchase of a large number of people.

Other dried fruits in small packages and canned fruits in small tins might achieve a considerable success when viewed in comparison to their present sales. Northern Manchuria and the "back blocks" of the northern provinces have little native fruit of their own. The present competition is largely from dried and canned fruits made in China. These are obviously and decidedly inferior to the American product but, so long as the general mass of Chinese do not know what is inside the American packages, the local product holds the market because of its lower price.

Canned fruits, since they are so largely used as presents and for feasts when entertaining guests, could be made "the proper thing to serve" once it were understood that they are a superior as well as more expensive product. It would then be impolite to serve the cheaper product to guests or present it as a gift. But to create this understanding and appreciation someone must open a tin of American fruit and show it to the Chinaman beside his own native product. This has not yet been done.



To create an appreciation for American canned fruits someone must open a tin of American fruit and show it to the Chinese consumer in comparison with the local product.

So far as advertising psychology is concerned, the Chinese people of Manchuria are little different from peoples of other countries. Money spent in trade promotion would give results if coupled with a package well within the reach of their purse. Therefore, to acquaint the Chinese with these products there should be used vernacular newspapers, posters, demonstrations before schools, in stores, and eating-houses, house-to-house canvassing with samples and printed literature, small samples given to storekeepers and a limited use of motion pictures.

The increasing population of Manchuria and its relatively high per capita wealth make these provinces one of the fertile fields for trade promotion if and when a reasonable political and economic quietude prevails.

NORTHERN CHINA

For our purpose, northern China may be interpreted as including all that area south of Manchuria and north of the Yellow River. It stretches from the Pacific westward and includes Mongolia and the long reaches of the Gobi Desert. Of this area, Tientsin is the chief port of entry, with Peking, the former capital, as a nearby center of distribution and trade. Each of these cities has a population of over a million persons. The entire territory, comprising approximately one-third of all China, has a total population of somewhere between 75,000,000 and 100,000,000 people. While portions of northern China are comparatively well served by railroads, in the sense in which this term is used in Asia, yet vast areas are traversed only by caravan routes and are distant many months from the ports of the Pacific.

Recently Peking has lost some of its importance and considerable of its wealth with the removal of the capital from that place to Nanking. Tientsin also has suffered, both as the port of entry to Peking and through the silting of the Hai-Ho River, whereby large draft vessels have been prevented from coming to the city. These now load and discharge at Tangku, 30 miles away. Northern China, however, continues to be one of the most settled sections of the country, both in political conditions and in the customs and habits of its people. The population is generally less turbulent than that in the south, and is more conservative in habits of life, as well as in thought.

There was a general agreement that the rural population at present could not be considered as a possible source of consumption for American fruits. Few reliable statistics have been gathered to shed light on the economic level of the population. Many of the people are, of course, extremely poor. Studies of the Peking Union Medical College in a few sections of that city indicate that 7.8 per cent of the population in the area studied were classified as "rich." In this classification were included those whose family incomes were \$100 a month or larger. In the same study, those of "fair" income were classified as of incomes between \$50 and \$100 a month. In that group were 29.5 per cent of the population. The most optimistic estimates of potential purchasers of American canned and dried fruits would include only those in these two classes, or perhaps one-third of the urban population. It is said that the minimum standard of living possible in Peking is an income of one dollar a month and that there

are many persons in that city who go through a lifetime on no larger income. For a dollar and a half a month, many persons consider themselves fortunate and above the lowest subsistence level. Obviously, all these are far below the potential consumers of imported foodstuffs.

In northern China, there are many persons of wealth who are able and willing to pay any price for foodstuffs which appeal to them. There are certain hams, well known to the Chinese, which sell for \$200 each. One may in Chinese restaurants pay anywhere from \$15 to \$150 for a dish of shark's fins, according to the variety that is served. At public affairs, the Chinese are an extravagant and generous people who spend extensively to entertain their friends.

Estimates of the possible buying power in the cities and towns of northern China were secured from many sources. These estimates varied from 5 per cent to as high as 40 per cent. Generally speaking, the lower estimates were made by importing houses occupied in the business of foodstuffs distribution, while the higher estimates were given by statesmen, educators, and social workers. Perhaps an estimate of 10 per cent to 20 per cent of the population in the cities might be considered as approximately correct for the purposes of this report. It should be understood, however, in connection with this estimate that such a considerable percentage of the people could consume American canned or dried fruits only in the event that these fruits were put up in small packages, were widely advertised and distributed by trade-promotion methods, and were constantly made available through numerous distributing centers.

Northern China has hot brief summers and long cold winters. During the winter, the climate is dry. Normally it does not rain between early fall and middle spring. Northern China and Manchuria present the best opportunity in Asia for the storage of dried fruits. During the heat and dampness of summer, however, dried fruits do not keep well in paper cartons. Likewise in summer, fresh fruits are subject to rapid deterioration. The brief summer season is one of great agricultural activity, of less leisure, of fewer feasts. The consumption of imported luxuries is therefore higher during the fall, winter, and spring.

Fruit in the Northern China Diet.—In the diet of the Chinese people, fruits find a minor place. Generally speaking, the Chinese do not consume fruit at meals either in a fresh, dried, or canned form. Indeed, there is a Chinese medical superstition which teaches that cold foods are dangerous and should not be eaten at meals. If canned fruits are consumed, they are usually heated before serving and are

used in connection with Chinese banquets. These banquets often conclude with fresh fruits, usually at least four kinds being served together. However, such banquets and feasts have but small part in the daily life of the people, and have no relation to any large increase in the sale of American fruits in China.

The diet of the people of northern China, as elsewhere in that country, is chiefly based on cereals. In northern China the prevalent cereal is more likely to be wheat than rice. Among poorer people millet or kao-liang (a grain sorghum) takes the place of rice. These cereals are supplemented with soy beans to provide a higher protein



Many bulky vegetables unknown in America are used by the Chinese. Such vegetables are both cheap and abundant in China.

content.* These grains may all be ground into a meal and made into a porridge or biscuit.† Vegetables rank next to cereals in dietary importance in northern China. A large number of bulky vegetables, unknown in America, are used by the people at large. Compared with these, the amount of fruit consumed is small. Vegetables are cheap and abundant. Fruits are comparatively expensive and scarce. Meat is also consumed only in small amounts. Usually this is pork, although among the upper classes, fowl may be eaten. Beef is practically never used in northern China. Tables 26 and 27‡ graphically show the low consumption of meat in northern China as compared with the United

* American Food Journal, September 1925. W. H. Adolph, Yenching University, Peking.

† Journal of Home Economics, August 1927. Ava B. Milam, Oregon State College.

‡ Scientific Monthly, July 1929. W. H. Adolph, Yenching University, Peking.

States, the higher volume weight of vegetables and fruits in China, and the low protein and energy derived from these food materials as compared with our own country.

TABLE 26
DIETARIES
COMPOSITION IN PERCENTAGES BY WEIGHT

	Northern China	United States
Cereals	57.0	25
Legumes	7.8	
Vegetables and fruits	27.1	20
Sugar and starch	0.2	14
Fats and oils	0.8	
Meat and fish	3.9	18
Eggs	0.5	5
Milk and cheese	0.0	15
Other foods	2.7	3

TABLE 27
DIETARIES
PERCENTAGE DISTRIBUTION OF PROTEIN AND ENERGY AMONG DIFFERENT
GROUPS OF FOOD MATERIALS

	Northern China		United States	
	Protein	Energy	Protein	Energy
Cereals	75.2	83.3	37.3	38.2
Legumes	10.6	3.9	10.5	12.1
Vegetables and fruits..	4.5	2.9		
Sugar and starch .....	.....	0.5	0.1	10.1
Fats and oils .....	.....	3.5	0.3	10.3
Meat and fish	8.1	4.8	35.3	19.0
Eggs	0.8	0.2	4.6	1.8
Milk and cheese .....	.....	.....	11.6	8.1
Other foods	0.8	0.9	0.3	0.4

Ordinarily fruit comprises but a small portion of the expenditure of even the upper-class families in northern China. Table 28,* although derived from a study of only sixteen families in Peking, is probably fairly representative of food expenditures. It will be noted that those incomes over \$25 a month show a definite expenditure for fruit.

In general, the Chinese diet is not sufficiently nourishing, and viewed by Anglo-Saxon standards, is deficient in fruits, vegetables, and meat.†

* Journal of Home Economics, August 1927. Ava B. Milam, Oregon State College.

† Chinese Soc. and Pol. Science Review, Vol. XI, No. 1, 1927. Hsien Wu.

TABLE 28

AVERAGE EXPENDITURE FOR FOOD AND PROPORTION OF TOTAL DEVOTED TO DIFFERENT KINDS OF FOOD BY SIXTEEN CHINESE (PEKING) FAMILIES GROUPED ACCORDING TO INCOME

Range of annual income within group	Number of families in group	Average number persons in group	Total annual expenditures for food	Proportion devoted to different kinds of food						
				Cereals	Vegetables including bean curd	Oils and other fats	Meats, fish and game	Sweets and accessory foods	Fruits	Milk
<i>dollars</i>			<i>dollars</i>	<i>per cent</i>	<i>per cent</i>	<i>per ct.</i>	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>	<i>per ct.</i>
81- 157	2	5.0	62.50	88.8	5.6	3.2	2.4	.....	.....	.....
250- 300	4	4.2	95.00	55.2	8.4	7.8	14.6	4.6	9.4	.....
500- 600	2	3.0	153.50	45.2	12.8	4.0	19.9	13.8	4.3	.....
1020-1460	4	7.5	273.00	47.2	12.3	6.8	10.8	10.8	7.4	4.7
2160-3410	4	6.7	512.00	31.0	10.1	6.3	17.8	15.8	11.9	7.1
Average.....	.....	5.6	247.00	40.9	10.8	6.3	12.3	12.3	9.3	4.9

Normally, the Chinese eat three meals a day, but in northern China many families have only two meals a day, although one sees the coolie class munching at one thing or another frequently between meals.[†] Among fresh fruits, the Chinese especially like peaches and pears. Dried fruits are normally sold in a semi-candied form. These are particularly popular among women and children. Many families, even among the poor, allow their children two or three coppers a day to purchase candies and candied fruits. The use of such sweets was formerly prevalent only in the south of China, but has more recently spread into northern China and is on the increase there. It is in this way, as a confection, that the raisin in the small package has found such extensive sale among the Chinese.

The fondness of the Chinese people for fresh fruit is a relatively recent innovation. These fresh fruits are eaten between meals except at banquets. Less fruit is eaten in winter than in summer, because the Chinese think of fruit as a refreshment rather than as a food. However, the number of Chinese receiving foreign education is on the increase. These educated Chinese contract new food habits under foreign influence. On return home they spread among their friends and acquaintances the demand for cooked fruits in various forms. Teachers in schools are looking more favorably toward the use of fruits in the diet and are coming to recognize their value. If educators generally were encouraged to discuss with their students the

[†] Special Report, A. Bland Calder, Commercial Attache, Peking.

value of fruits, such teaching would ultimately have a marked effect upon the consumption of canned and dried fruits. Necessarily, however, measurable results would only accrue through a series of years.

Fresh Fruits.—Northern China has a large fresh fruit production of its own. Shantung Province is especially noted for its excellent grades of peaches, pears, grapes, and apples. One sees enormous quantities of fresh fruits on sale in all the markets of the cities of northern China throughout the summer and fall. At every railroad stations, lines of hucksters selling fresh fruits meet the trains. The French missionaries introduced many foreign fruits which have been extensively planted. The most successful of these have been peaches and grapes. Other fruits tend to lose their quality, if not their size, after some years of introduction into China.

Apricots of native production come into the market in June. They are both popular and cheap, and are of good size, sometimes superior to those produced in California. On the fruit stands in the cities, one apricot sells for about three coppers, $\frac{1}{3}$ cent in United States money. Immediately after the apricots, cherries come into the market. These are succeeded by several varieties of peaches and plums. Plums of good quality sell for about $\frac{1}{2}$ cent each. Large selected fruits of superior quality are sold to foreigners at double that price. In late July and August, great numbers of watermelons are on sale. There are varieties with red and with yellow pulp which sell from 4 cents to 16 cents each, according to the season and the size. Not many melons of the honeydew or cantaloupe type are grown, but native melons about the size of an apple with a flavor similar to the casaba melon are produced. In August, grapes appear on the market, several varieties of which are extensively grown in northern China. Many of these resemble the Tokay and other varieties familiar in California. On sidewalks these grapes sell for about 5 cents a pound. In the grocery stores catering to foreigners, the price is 6 cents a pound, or more. Native apples of a quality inferior to those grown in America sell for about 6 cents a pound. Apples and hard native pears are on sale all winter.*

In September, in the street markets of Tientsin and Peking, large pomegranates were 3 cents each; pears of native type, 4 cents a pound; European pears, resembling Bartletts in size, shape, and color, from the vicinity of Chefoo, 7 cents a pound; peaches, four or five to the pound, 6 cents to 9 cents a pound; apples, 6 cents a pound; grapes,

* Special Report, A. Bland Calder, Commercial Attache, Peking.

4 cents to 6 cents a pound ; watermelons, 15 inches long, 25 cents each. All these fruits were on sale at the same time and frequently at the same fruit stand. The vast quantity of fresh fruits on sale in the native markets was astonishing to those unfamiliar with the production of native fruit in northern China. At a railroad station in Shantung, 18 pounds of grapes of Tokay type were purchased in a handsome wicker basket, for 20 cents. The basket was thrown in free with the purchase.



At a fruit stand in Peking several varieties of excellent peaches, pears, grapes and apples can be purchased. Many of these come from Shantung province.

At the same fruit stands selling these excellent and cheap native fruits, the only American fruits on sale were oranges from California. These were evidently culls. They were offered at 16 cents a pound. These fruits—small, off-color, misshapen—bore the stamp of a popular California brand, the advertisements of which state it is synonymous with quality. Foreign residents in northern China refuse to believe the advertising.

Among the foreign population, the greatest demand is for American apples and oranges. The latter are chiefly needed during the summer months. They are especially desirable in the diet during the hot weather when the native Chinese oranges are not in market. Native oranges, grown in southern China, come extensively into the northern markets during the winter months.

Apples come to this market in great quantities from Japan and Korea as well as from other ports. In comparison with them, the

volume of American importations is small. The flavor of Japanese apples is poor but those from Korea and certain portions of China are esteemed. Importations through Tientsin are shown in table 29.*

TABLE 29
APPLES—IMPORTATIONS THROUGH TIENTSIN

	Pounds		Value	
	1927	1928	1927	1928
From the United States	27,733	17,733	\$2,173	\$1,280
From Japan and Korea	129,067	430,266	6,607	22,244
From Chinese ports and Hongkong	308,400	293,467	16,291	8,870
Total	465,200	741,466	\$25,071	\$32,394

The above statistics indicate that on the average either the Chinese or Japanese apples are valued at customs at slightly more than 4 cents a pound, while American apples are valued at more than 9 cents. Furthermore, American apples are less than 5 per cent of those imported through Tientsin. High price rather than low quality is the cause of small American sales in this market.

Oranges imported into northern China come largely from southern China and Japan. Importations from the United States are very small. The Chinese Maritime Customs report only 4,133 pounds of oranges from America into the port of Tientsin in 1927 and 5,600 pounds in 1928, whereas importations in 1928 from Japan were over a half million pounds, and from southern Chinese ports, over a million pounds. Importations of American oranges will only increase by shipments of better quality oranges without greatly increasing the price.

Lemon imports were only 176 boxes in 1928. Opportunities for increasing this market for lemons are small because limes and other acid fruits can be cheaply imported from the tropical regions of the south. Grapes from America find no market here because of the excellent quality and low price of native grapes.

Fresh imported fruits are charged a duty of 10 per cent with the exception of apples, the duty on which is \$1 per 133 $\frac{1}{3}$ pounds; and of lemons, for which a duty is charged of \$3.40 per thousand lemons, or about \$1.02 a box. Little distribution of fresh fruits is made beyond the cities of Tientsin and Peking.

Canned Fruits.—Although the Chinese canned fruits are vastly inferior to the American product, both in the quality of the fruit and

* Compiled by Consulate General, Tientsin 1929. Data from Chinese Maritime Customs.

in the amount of fruit in the can, they are sold extensively among the Chinese, who fail to discriminate in quality and who are often unacquainted with either the quantity or quality of fruit inside the can made in America. At group conferences with Chinese provision dealers in Tientsin and Peking, it was notable that even many of these men, occupied in the business of selling American canned fruit, seemed unfamiliar with the contents of the American fruit cans. They were well acquainted with their exterior, and spoke glibly of prices, sizes, and trade methods, but when confronted with the fruit emptied from the can, or when it was served to them individually in dishes, they hardly knew what it was called and sometimes did not know how to eat it.

The Chinese tins are normally filled only a third or fourth with fruit, and sell for one-third or one-fourth that of the American product. The remainder of the can is filled with thin syrup, which is quite acceptable to Chinese of unsophisticated taste, because of its pleasant flavor. Since many of these canned fruits are presented as gifts, the can of native fruit with the gaudy label makes a great show for a small amount of money. Most of the Chinese canned fruit is brought northward by sea from various points in southern China, but there are at least three canning companies in the city of Tientsin.

In northern China the most popular canned fruits are, first, pineapples; second, peaches; and third, cherries. The mixed canned fruit, known as fruit salad, is particularly popular for Chinese diners, even though somewhat more expensive. The demand for canned grapes, canned apricots, and canned pears among the northern Chinese is relatively small. Many Chinese do not think that pears are sweet enough to appeal to the taste. The canned apricots look small in size because of the large apricots grown in China. Canned grapes here seem to have but little appeal, whereas their countrymen further south are exceedingly fond of them.

TABLE 30
CURRENT PRICES, SEPTEMBER 1929, AMERICAN CANNED FRUITS,
TIENTSIN AND PEKING
In No. 2½ Cans

	Wholesale Per Case	Retail Per Can
Apricots	\$6.94	\$0.26—\$0.34
Cherries	9.38	.28
Peaches	6.81	.22—.28
Pears	8.08	.26
Fruit salad	9.40	.28

In large measure, canned fruit imported from America is sold only in the large cities. Native canned fruits have an extensive sale throughout the whole country, partially because of their cheapness and partially also because of the method of distribution by which Chinese canning companies extend credit to native dealers for a considerable period of time.

In the provision stores of Tientsin and Peking, American canned fruits were on sale at the prices given in table 30.

It may be noted from table 30 that retail prices in some cases were actually lower than wholesale prices in case lots. This frequently happens in China in a time of rising prices. The Chinese retail merchant is prepared to sell at anything over cost because he cannot afford to hold stocks. Usually his credit is stretched to the limit, so that he must realize on stocks on hand. The retailer was selling from 1928 stocks, whereas wholesale quotations were based on 1929 prices.

The 8-ounce can of American fruits is having increased sales in this market among a few of the European population and educated Chinese. Prices of the Chinese No. 2 cans and the American 8-ounce cans, both of which contain about the same amount of fruit, are given in table 31. According to the statistics of the Chinese Maritime Customs, importations from the United States through the port of Tientsin totaled 5,449 cases in 1927 and 3,173 cases in 1928. Over 80 per cent of the imported canned fruit came from America.

TABLE 31
CURRENT RETAIL PRICES, SEPTEMBER 1929, AMERICAN AND CHINESE
CANNED FRUITS, TIENTSIN AND PEKING

	American In 8-Oz. cans	Chinese In No. 2 cans
Apricots	\$0.12	\$0.10
Cherries .....	.14	.10
Grapes .....	.....	.11
Peaches .....	.12	.12
Plums .....	.....	.11
Fruit Salad .....	.14	.....

Canned fruits are ordered by dealers in Tientsin at c.i.f. prices through local agents of California packers. In many cases these agencies are branches of agents at Shanghai through which orders are forwarded to California. Canned fruit is usually shipped to Shanghai and then trans-shipped to Tangku, but it is sometimes sent to Japanese ports and there trans-shipped. Arrived at Tientsin, American canned fruits pay a duty of 12½ per cent and wharfage dues and a conservancy tax equal to 8 per cent of the duty. Handling

charges average 4 cents a case. A local customs duty of 5 per cent on the c.i.f. price is paid for entry of goods into the city of Tientsin.

Dealers in Peking order through dealers in Tientsin at 'ex-godown' prices which include the above cost, plus the profit of the Tientsin dealer. They further must pay railway freight on the haul of 67 miles from Tientsin to Peking, and a local city tax into Peking. These two usually equal about $3\frac{1}{2}$ per cent of the wholesale prices.

At present prices, American canned fruits sell so much higher than the native product that they are beyond the range of much of the population, even above the purchase of the middle classes. Though it be granted that an 8-ounce can of American fruit contains as much actual fruit as a No. 2 can of the native Chinese fruit, yet this is not sufficient to persuade the Chinese who finds the 8-ounce can selling at a higher price than the large can of native fruits. If there is to be any large sale of the small cans of American fruits, such as is now proceeding in the United States, the price of these cans must be reduced to an equality with the price of the large can of Chinese fruit. It is now possible for the purpose of a gift, to buy four No. 2 cans of Chinese fruits for one dollar of local Chinese currency. For this same dollar it is possible to buy only three 8-ounce cans of American fruits.

American canned fruits have not yet permeated the surface of the Chinese market of northern China. They appeal to the native taste, are present in markets of the large cities, but are swamped by the flood of cheap Chinese canned fruit sold by aggressive methods at low prices. The present system of selling American fruits is antiquated and cumbersome. The Chinese cannery sends its own salesmen to dealers, grants extended credit, and delivers goods on short notice. American fruits are ordered by a long, tortuous route. The dealer must anticipate his needs far in advance and must deposit credits and pay interest for the period during which the goods are shipped from America and delivered in China.

Canned fruits in the usual sizes could, by trade promotion, have their demand materially increased in northern China. In the small 8-ounce size they furnish a fertile field for the extension of present markets. Passive order-taking, as prevalent in the past, will not, however, bring any large results.

Dried Fruits.—The northern Chinese have a large number of native dried fruits in a semi-candied form. It is common usage for Chinese to serve these dried fruits to callers, particularly at the four festival seasons. Normally, at least four, and usually six, such dried fruits are served together. In the markets of northern China native

dried fruits sell at retail at the following prices per pound: persimmons, 20 cents; oranges, 17 cents; figs, 20 cents; apricots, 17 cents; peaches, 17 cents; and the "black date," or jujube, 12 cents. Native white raisins are sold in various qualities at from 12 cents to 18 cents a pound.

Among imported American dried fruits, raisins, of course, hold first place. These are largely sold during the winter months, since in the small paper cartons raisins do not keep well during the heat and dampness of the summer. In 1927 the importation of raisins, largely of American origin, through the port of Tientsin totaled 205,067 pounds. In 1928 they increased to 341,999 pounds. In cartons raisins retailed at about 17 cents a pound. In the small 1¾-ounce carton they sold locally at 3½ cents to 4 cents. The raisin is the only American fruit that has found its way in considerable quantity into the back country of northern China. Raisins in small packages are on sale in practically every town of any consequence. They travel by caravan across the Gobi Desert and penetrate far beyond the usual channels of trade. The little red package is as well known in the marts of Mongolia as on the news-stands of America.

Prunes are increasing in use among the people of northern China. This has been caused in part by returned students who have learned to eat them in cooked form in America and Europe. In part it has come about through their use as a confection in the dried form. The largest sale for prunes for this purpose is at festival seasons when various fruits and candies are consumed. It was the general opinion among dealers consulted, as well as among the general public, that prunes put up in a small package of such size that it would be sold at retail for 5 cents would find a considerable sale, provided they were introduced through proper trade-promotion methods. It was also the general opinion that prunes packaged in small envelopes, one or two prunes to the envelope, and sold by hucksters in the streets, would be widely used by the Chinese people after they became acquainted with them. In order to introduce prunes into common usage, it would probably be necessary to sell them at a price as low as the price of raisins. Indeed, it might be necessary in the earlier years to lower the price in order to develop among the people the habit of eating prunes. There are many dishes in which the Chinese use the jujube for cooking purposes. Ultimately it might be expected that the Chinese would use the prune in like manner when they became acquainted with it and its virtues.

Dried figs are appreciated by the people of northern China but are generally regarded as too high in price to be within the popular

range of purchase. There is a possibility, however, of a considerable sale of low-priced dried figs, provided these were shipped into China in bulk and there packaged in small envelopes. Other dried fruits are used only by the European population and consequently have only small sale in northern China.

Dried fruits are ordered on the same system as are canned fruits, with the exception of raisins, which are largely disbursed through stocks in China which are there packaged. Duties and other costs on dried fruits are identical with those for canned fruits which have already been mentioned.

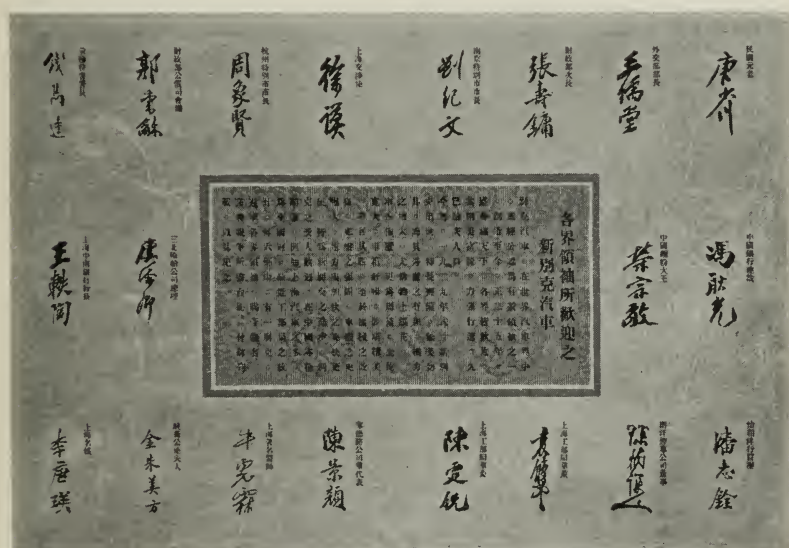
Trade Promotion Methods.—Any commodity that is to sell largely among the Chinese must be within the purchasing power of the coolie classes, which make up a large bulk of the population. The success of the sale of kerosene oil, of cigarettes, and of raisins, has been based upon the small expenditure required to make an individual purchase. Their sale has been adapted to the smallest unit. Kerosene oil is sold by the dipperful; cigarettes can be purchased one at a time; and raisins can be bought in a small paper envelope for a couple of coppers.

If it is estimated that 10 per cent, or even 20 per cent, of the people in the cities of northern China can afford to buy a package of dried fruit that will sell for 5 cents, and if this same percentage can afford to buy a small 8-ounce can of canned fruit at festival times or for presents, the problem still arises as to how this generally illiterate public, scattered over enormous areas of country in which there are but poor transportation facilities, can be acquainted with the product and inspired with the desire to purchase it. Obviously, extensive trade promotion and the expenditure of considerable sums of money would be required before the commodity would pay its way.

Many suggestions were made by those familiar with sales methods in China as to the means by which the Chinese public might become acquainted with and appreciative of these commodities. Agreement was general that dried prunes could be successfully promoted in the small package among the middle and upper classes of Chinese and, if sold with one or two prunes in a paper envelope, would even be used by the coolie classes. It was also the general opinion that at slightly lower prices the small tins of canned peaches, fruit salad, pineapple, and perhaps other fruits, could be sold to many of the Chinese people. All these, however, would require more than passive selling. At present, the initiative to buy canned and dried fruits is left entirely to the purchaser. The goods, if sold to the native dealer, are placed on

the shelf where they rest with the hope that someone will come in to buy them.

In China, the first determinate factor in any sale is the price. Lower prices depend primarily upon a larger volume of sale for the product; secondly, upon the establishment of local distributing centers through which the dealer may obtain short-term stocks of the goods, thus obviating the deposit of sums of money for large stocks for a long time ahead; and thirdly, upon a control of the price through an ability to limit the profits of those who handle the commodity at various stages.



Testimonials from noted persons are an effective method of advertising. This poster, advertising an American automobile, bears the signatures of many high Chinese officials. For American fruits, testimonials from physicians and educators should be used.

Trade promotion should include such methods as securing testimonials of noted physicians and educators, for use in promotional literature. It should also include the use of posters in full color and the printing of recipe books, folders, and leaflets explaining in the native dialect how the fruits may be used in native dishes. If Chinese girls were employed in a house-to-house campaign to explain the use of these fruits while distributing free samples, this might prove productive. Demonstrations of the cooking of these fruits given in the large stores of the larger towns are an effective method. Because the Chinese entertain and do business in restaurants, the featuring of fruit dishes in such public eating places would be a profitable means

of trade introduction. Such fruit dishes can be featured by paying a small fee to the restaurant cook.

Advertisements in Chinese newspapers, while more expensive, have a certain appeal. Although only a small portion of the public is literate, this portion guides the trend of popular opinion. Amusing pictures run in serial form, of such a character that they would attract the children of the families, such pictures showing favorable results from eating American fruits, would be an effective form of publicity in newspapers. The Chinese are notably both a jovial and a curious



Posters showing the notable effects from eating American fruits are effective. This poster urges parents to buy California raisins for their children.

people. Pictures that appeal to their humorous impulses or to their curiosity, are effective in advertising methods. However, except with the aid of somewhat lower prices, all these methods might prove unproductive.

There is an attraction to the Chinese in foreign goods. Just as in America many people think materials are more unique and more valuable if the salesman explains that they are imported from abroad, so in China many people are impressed with the novelty and value of imported articles. This tendency can be successfully capitalized by trade-promotion methods, provided the price can be kept within the reach of the consumer of the middle classes.

CENTRAL CHINA

Central China includes that region south of the Yellow River and north of a point on the Pacific coast midway between Soochow and Amoy. It spreads westward throughout all of China into and including the major portion of Tibet. This great area, comprising nine provinces of China, has an estimated population of about 200,000,000. Portions of this territory are the most thickly settled in the world; others are so sparsely populated as to be among the little known regions of the globe.



Shanghai ranks with New York and London as a shipping port. The Bund in Shanghai is one of the busiest streets in the world.

Central China has at least eleven large cities with over 100,000 population. Its great port of entry is Shanghai. Central China is traversed by the great artery of the Yangtsze River. Down this river come products from the far interior to be exchanged for imported commodities for consumption in the heart of central Asia. On the Yangtsze River steamers journey 1,800 miles into western China. As far as Hankow the river has a draft of 25 feet at high water and a draft of 10 feet or more throughout the entire year. In the delta of the Yangtsze there is a crowded population of about 40,000,000 people, or a little less than one-tenth of all those in China. In this

area much of the travel is by boat through canals and river tributaries which provide a cheap and relatively efficient mode of transportation for the huge population.

The city of Shanghai, with 2,760,00 population, ranks with New York and London as a shipping port. About 40 per cent of the total trade of China and 58 per cent of its imports come through this one city. Shanghai has grown enormously in recent years owing to the importance of its international settlement and to the consequent influx of financial, business, and manufacturing houses to this metropolis of the Far East. Therein comparative safety of life and property are assured under the protection of foreign governments. Over 47,700 foreigners, among whom are 3,000 Americans, live and do business in the city of Shanghai, which owes its preëminence to its location on one of the great waterways of the world. In the freight handling of the port of Shanghai 40,000 laborers are constantly employed with hand carts, wheelbarrows, and other hand-drawn vehicles in transferring goods between the ships of many nations and the warehouses of this port.

Two hundred fifteen miles up the river is Nanking, the new capital, with a population of 500,000. Almost 600 miles up the Yangtze is Hankow, a city of about 1,000,000 people, which has long served as a central point in China for the trade and distribution of important products. Owing, however, to the disrupted condition of the interior and to the consequent interference with business conditions, Hankow has so greatly suffered in recent years that it has temporarily ceased to hold its former importance. Up the river, 1400 miles above Shanghai, is Chungking, a city of over 500,000 people.

During times of disturbance, commodities necessary to the life of the people continue to flow from one part of China to another. Luxuries are more largely interrupted because merchants hesitate to order materials which have infrequent sale or for which the demand may decrease. Interior points beyond Hankow have therefore received less of foreign importations, including dried and canned fruits, than formerly. This is in part due to the decrease in the number of foreigners but in part also to the hazards of transportation and commerce. Nevertheless, some American food products, including raisins, continue to find their way into the far interior and are on sale in many distant towns. At present, however, the interior of central China is a declining rather than an increasing market for canned and dried fruit. As soon as staple conditions again prevail, this situation will radically change unless the government in power actively opposes the entry of such products into the country.

In such large centers as Shanghai and Hankow, where foreigners have settled and factories have developed, wages are higher than at points in the far interior. Nevertheless, according to American standards, the rate of pay is extremely low, with consequent low purchasing power. Whereas in American cities, laborers may be paid from \$100 to \$300 a month, in Shanghai adult male factory workers are paid an average of about \$8.50 a month, or possibly double that figure in a few industries. In canning factories, the average wage is about \$10 a month. In general, wages are fixed by the price of rice, which determines the minimum standard of living of laborers. Additions of meat, vegetables, and fruits to the diet are considered as luxuries not within the reach of every workman.*

On the other hand, there are crowded into Shanghai and other similar international settlements, thousands of Chinese of considerable wealth who seek a refuge therein from the troubled conditions of the interior. It is said that there are now more wealthy Chinese in Shanghai than in Peking. High government officials, whose official headquarters are in Nanking, spend much of their time in Shanghai. These and other wealthy Chinese have brought into the large cities a higher standard of living than that previously obtaining among the people. In turn, this has caused a demand for better conditions among the lower classes who naturally seek to enjoy, insofar as possible, some of the luxuries which have become so common among wealthier Chinese. Thus, an unrest over labor conditions and wages has developed. This has brought about a gradually increasing standard of living among those who have been able to force their demands upon their employers through strikes and other methods of agitation. It may be expected, therefore, that at the points in central China easily reached by foreign methods and influence, there will be an increased demand for those products which were formerly considered luxuries. Such demands may be temporarily lost to sight during wars and disturbed political conditions; however, the standard of living is certain to rise gradually.

In central China as elsewhere in the Far East, the purchasing power of the people is difficult to estimate. Many persons long resident in the country, particularly those who have tried to introduce new products without means adequate for trade promotion, are most pessimistic concerning the percentage of the population able to buy low priced imported products, such as canned and dried fruits. Estimates made by competent persons long conversant with the China

* Journal of the Shanghai Bureau of Social Affairs, January 1929.

market varied from as low as 2 per cent of the city populations to as high as 40 per cent. Executives of great American concerns who have successfully introduced products to the Chinese by means of direct selling placed the potential demand for low priced imported articles at from 10 to 20 per cent of those resident in the cities. Certain large business organizations which have probably the widest experience of any throughout the entire country estimated that in central China there are fifteen million people who might purchase small packages of American fruit provided they desired them.

Fruit in the Central China Diet.—Here, as in northern China, fruits are not a normal part of the meals of the people. Rice with vegetables generally serves as the central item in the diet. In addition to these a number of condiments and meats are used by those classes having the necessary funds with which to purchase them. None of these additional dishes or condiments which are served with the rice are sweet, however. They provide a salty or spicy flavor in which sweets have no place. The people are fond of fruit, this being largely consumed between meals by those who can afford it. Possibly because of the paucity of the diet, the Chinese nibble at various foodstuffs between the normal three meals of the day. Dried fruits, seeds, nuts, and candies are all consumed in this way.

Many Chinese suffer from poor health. Large numbers of the people of central China have various disorders of the digestive tract. This is even more true of the well-to-do than of the poorer classes. It is common belief that all foods of whatever kind that are eaten have a direct and perhaps an immediate effect upon the health. Such foods, therefore, as are believed to have a medicinal value have a strong appeal. On the other hand, articles of the diet which are thought to be detrimental to the health are shunned. Therefore, any foodstuffs promoted into China should not only appeal to the taste but should also be demonstrated to be of value to health. All those who are cognizant of the recent discoveries in human nutrition will at once recognize the value of fruit in the diet. The Chinese diet is notably deficient in certain items, among them fruit.

The Chinese are enormous consumers of medicinal preparations, including not only those put up by native doctors and drug stores but also of patent medicines imported from foreign countries. The amount of money expended for these is far beyond the normal demand as measured by countries of greater purchasing power. To the Chinese, medicines influence a vital matter in which they are immediately and personally concerned, namely, their health.

Fresh Fruits.—A sharp distinction should be drawn between the demand for fresh fruits among the limited foreign population of the city of Shanghai and the requirements of the far greater native population within the possible range of purchase of fruits from America.

In general, the foreign population would like to have, insofar as possible, the same quality and kinds of fresh fruits at the same prices as at home. American fruits sell at a higher price than in the United States because there are added to their original costs the charges for



Competition from fresh fruits produced in China is on the increase. Some of the grapes and other fruits locally grown are equal or superior to the imported fruits from America.

refrigeration, freight, insurance, duty, handling charges, and interest on the investment, as well as the profits of the various dealers who handle the product before it reaches the consumer. These increased costs become especially prominent in a market wherein the unit of exchange, namely the Mexican dollar, has but a fraction of the value of the American dollar and where, generally speaking, labor and living are cheaper than at home. Thus, the increase in prices of American fruits seems more outstanding and indeed exorbitant. In the same breath in which a foreigner denounces the poor quality of California fruit for sale in the Shanghai markets he will bewail the high price charged for it. The point of view of the foreign resident

is not always consistent nor is it an accurate guide for those who would judge the possible development of the market in this great city. Necessarily, possible consumption of fresh fruit among Europeans is decidedly limited.

The real problem in the importation of fresh fruits to this port is to secure fruit of good quality at a price within the range of the purchasing power of the Chinese. Furthermore, this fruit must compete in price with locally grown fruits which are abundant in the markets during much of the year. The current rate of exchange enters into this problem. For example, in 1929 the price of apples was higher in America than in the previous years, while at the same time the exchange value of the Mexican dollar was lower. Therefore, prices at Shanghai being quoted in Mexican dollars, were much higher than usual. Consequently, the consumption was materially reduced.

The competition from fresh fruits produced in China is on the increase. It is true that the ravages of the Mediterranean fruit fly and other insects as well as of certain plant diseases cause the quality of the Chinese fruit to be uncertain. Nevertheless, the large volume of native fruit coming on the market is of sufficiently high quality so that many foreigners declare that with the possible exception of oranges and lemons, they now purchase nothing but locally grown fruit.

Of course, no detailed survey has been made of the fresh fruit production of China, but judging from the fragmentary reports available, the volume of native fruit is larger than generally supposed. In northern Shantung Province, exclusive of the leased territory of Weiheiwei, the average production of native fruits from 1916 to 1925 was 18,614,500 pounds per year, of which it is estimated that 75 per cent is exported.* In Fukien Province, from which come the so-called "Foochow oranges" the production of these is said to be over 30,000,000 pounds per year† while in Chekiang Province, south of Shanghai, the production of oranges is said to be 40,000,000 pounds per year. Fukien Province is also said to grow 2,500,000 pounds of plums, 800,000 pounds of peaches, and 130,000 pounds of prunes and of loquats. Around Nanking five varieties of peaches are grown, the production of which is said to be over 1,330,000 pounds per year.‡

These fruits come into Shanghai markets in large quantities, appearing at about the same seasons of the year as in the central zone in the United States. In late April or early May, apricots are on sale. Peaches follow in May or June. The least amount of local fruit is on

* Report of Consul Leroy Webber (1927).

† Chinese Economic Journal (December 1928).

‡ Bureau of Economic Information, Republic of China.

sale during the very hot summer months. It is during that season that oranges from California are most in demand. In August, fruits from Chefoo come to Shanghai. These cause an immediate effect on the sale of California oranges, the demand for which is at once lessened. Grapes, plums, and peaches are on display locally in great abundance. The native Chefoo apples appear in early October but become scarce by the middle of December. Korean apples arrive in late September and continue in the market until late January. Several varieties of



Local fruits come to the Shanghai market in great quantities, arriving by cheap water transportation.

hard native pears are stored in China by burying them under the ground. These are sold throughout the entire winter, as are also the oranges from southern China.

Prices of these fruits vary with the time of year, as happens in America, some are marketed entirely too green in the hope of getting the benefit of high prices in the early season. Generally, however, prices are as given in table 32.

TABLE 32
CHINESE FRESH FRUITS, PRICES IN SHANGHAI, SEPTEMBER 1929
Per Pound

	Wholesale	Retail
Apples	\$0.02	\$0.05-\$0.06
Bananas .....	.02	.03-.04
Grapes .....	.05	.08-.10
Pears .....	.02	.04-.07
Persimmons .....	.01-.02	.03-.05
Pomeloos .....	.04	.10

The extent of the competition of native fruits with the imported may be glimpsed through the statistics gathered by the Maritime Customs Service. Although these figures may not be entirely accurate or correct, especially in regard to native importations, yet they are likely to err on the side of being too small rather than of being too large, since much native fruit is smuggled into the port.

TABLE 33
FRESH FRUIT IMPORTATIONS, PORT OF SHANGHAI, 1928
In thousands of pounds

	Apples	Oranges	Lemons	Grapes
From Japan	347	61	.....	1
From Korea	78	.....	.....	.....
From Canada	749	.....	1	.....
From France .....	.....	6	30	.....
From United States	1,001	2,500	3,028	266
From Philippines .....	.....	32	.....	.....
From other foreign sources ....	.....	1	63	.....
Total foreign importations.....	2,175	2,600	3,122	.....
From China ports	9,675	17,871	3	860
Total importations	11,850	20,471	3,125	1,127

Most of these importations, whether native or foreign, are consumed in the vicinity of Shanghai. Of the apples received, only 241,000 pounds, or 11 per cent, were re-exported to interior points, and 68,700 pounds to coast points. Of the grapes received at Shanghai, only 8,200 pounds were reported as having been re-exported—a practically negligible amount. Of the 3,125,000 imported lemons received at Shanghai 1,169,745 were re-exported to coast points, while only 34,350 went up the Yangtsze River to interior points. These figures illustrate the small degree to which fruit coming into Shanghai is forwarded to the interior.

The above figures, which are the best available, point to several general conclusions. First, that the importation of native fruit is far greater than that from abroad. Second, that the volume of fresh fruits from America coming into Shanghai is small, especially when compared with the size of the crops at home. The reported imports of grapes from the United States into the port of Shanghai were only a little over one-hundredth of one per cent of the fresh grape crop of California. Third, they indicate that the majority of fruit imported into Shanghai was consumed in and near that city and that whatever fruit is shipped therefrom goes largely to coast points north and south

of the city rather than into the interior. Shipments of American fresh fruit up the Yangtze River have been, in the immediate past, extremely small.

Oranges from America are chiefly in demand between May and July. The market starts to fall off in August when the native fruit is on sale in greater abundance. Oranges shipped into the Shanghai market run from 200 to 252 to the box, the general wholesale price being about \$6.40 a box, while the retail price is from 32 to 45 cents



Local grapes are abundant and cheap in the markets of Shanghai. Almost four times as many local as imported grapes are sold in the city.

a dozen. The small size and poor quality of California oranges in Shanghai have been a frequent cause of complaint among foreigners. The demand for small oranges has been created by competition in the market. Sales are made to restaurants, hotels, and to servants employed by foreigners. These desire not only to obtain oranges at a low price but to obtain as many oranges as possible for a unit of value. Since not less than one orange can be served, the more oranges there are to the box the further they will go, either if served to customers in restaurants or if sold by the dozen to household servants. Thus, the demand in the Shanghai market has forced downward both the size and quality until, at present, the California oranges displayed are certainly not a product of which the state can be proud. However, the demand for California oranges is good and the market strong.

California grapes find their greatest favor when the late varieties are in season, namely, from August until late fall. The demand for native grapes has been caused by the recent improvement in native grape production. Many native grapes compare most favorably with the California product as received in this market. California grapes of the Red and White Malaga varieties retailed in Shanghai for about 14 to 15 cents a pound. Many foreigners expressed themselves as far preferring native grapes now so abundant at all local stores.

American apples find a seasonal demand dependent upon the extent and quality of the China crop. King David apples from America, running about four to the pound sold in Shanghai markets at about 4 cents a pound. Bellflower apples were about the same price. American apples of fine quality retailed as high as 8 cents a pound.

Peaches, plums, and pears would find little market in Shanghai. Local peaches of good quality come into the market during the summer in quantities adequate to supply the demand. American plums are in demand in large sizes only, and these find but little sale. American pears will not find markets in Shanghai because of the fair quality and cheapness of the local product with which they cannot compete.

Freight rates by refrigeration from California ports to Shanghai are as follows: apples \$1.10 a box; oranges \$1.50 a box; grapefruit \$1.55 a box; lemons \$1.70 a box and \$0.95 a half box; grapes \$25 per ton of 40 cubic feet.

Cold storage facilities at Shanghai are extensive. Five companies maintain cold storage warehouses, but space in these is limited by other products in which the companies are more directly interested. Vast quantities of eggs are shipped to Shanghai where they are converted into frozen or dried form. These are kept in cold storage until such time as they are in demand. Thus, shipments of fresh fruits to Shanghai requiring immediate storage might find difficulty in securing space adequate for their needs at the particular time and season at which it was desired. The general rate charged for cold storage is one Mexican cent per pound per month of thirty days, or about one cent per pound in United States currency for seventy-five days. This rate is frequently decreased at seasons of the year when the refrigeration plants are not crowded by other commodities.

One difficulty that confronts the dealer who desires to send American fresh fruit into interior points in China is the lack of refrigeration on both coastal and river steamers. No local steamers plying out of Shanghai to coastal ports have refrigeration space. Only one boat on the Yangtze River has any refrigeration space; this boat plies infrequently as far as Hankow.

There are a number of importing firms in Shanghai handling fresh fruits. There are also about 140 fresh fruit dealers who purchase these fruits from the importers. The business transactions between these agencies are quite uniform as to the methods employed.

The importing houses employ salesmen who call upon the dealers or Chinese merchants to take orders for fresh fruits dated for future delivery. The prices quoted are based upon cabled prices received each Sunday from California. The orders being accumulated, the importer then orders his supply from his home office in California or from an exporting firm based upon the orders he has contracted to fill.



American fruits are moved from wharves to cold storage warehouses and to dealers on hand-drawn carts.

The exporting office in California ships the fresh fruit to the importer in Shanghai, at the same time drawing a draft upon the Shanghai importer for the value of the shipment plus the insurance, freight, and if the Shanghai firm has no California office, possibly also for commission.

The bank in California undertaking the collection of the draft, discounts it and sends it to a Shanghai bank with the bill of lading and other necessary papers, such as those having to do with governmental inspection for export, etc.

The bank in Shanghai, upon receiving the draft and included papers, notifies the Shanghai importer that the draft has been received. The importer must then take up the draft, have the shipment cleared

through the customs, and pay the duty which at present is 10 per cent, except for apples, with which it is \$1 for 133 $\frac{1}{3}$ pounds, and for lemons, with which it is \$3.40 per thousand. The draft may be paid in full at this time or the importer may place with the bank a "letter of guarantee" covering the period that the shipment is being cleared through customs.

After the shipment is cleared and the duty paid, the importer notifies the buyers that their goods are available and submits to each a bill, estimated to cover all charges. Before the goods are made accessible to the buyer he must pay to the importer the gross amount of this bill, which is stated in United States dollars. The bill being paid, the buyer is then given an order upon the warehouse or wharf of the steamship company that has carried the goods from California. This order permits him to take delivery.

When all deliveries are made to the buyers of the cargo, a final bill is made out for each buyer. The bill states the c.i.f. price plus other charges such as customs fees, duty, interest, commission and wharfage charges, also the rate of exchange from United States dollars into local currency. The final settlement may be more or less than the first bill paid at the time of delivery, according to the exact amount of the accumulated charges, which can only be determined after the transaction is entirely completed.

Another method, occasionally used, is to ship fresh fruit from California by consignment to some commission house located in Shanghai. From the foregoing discussion it must be apparent that such a proceeding is hazardous in the extreme, since the owner of the fruit in California not only risks the danger of spoilage but also the possibility of coming into an over-loaded market at the expense of high costs. Such a method is to be recommended only to those in whom the gambling spirit is predominant.

In central China there is no demand for an increase in shipments of fresh fruits from America. Owing to the improving quality, increasing quantity, and low price of the native fruits, American importations are likely to decrease rather than increase. From time to time, however, by close study of the market, exporters may be able to find additional shipments to Shanghai a profitable venture, but such a method can be utilized by only a few individuals. Oranges and lemons will continue to be shipped to the markets of central China because American oranges can be marketed at a season when the native fruit is not so plentiful and because lemons are not extensively grown in the country.

The market for fresh deciduous fruits in central China will not warrant general attention nor have any measurable part in the marketing of the growing volume of California products.

Canned Fruits.—Chinese canned fruits are abundant in this market. There are twenty-one canneries in Shanghai which in addition to fruits pack meat, fish, vegetables, and make biscuits. Their total output is valued at about \$4,000,000 a year.* Most of these native canned fruits are consumed in Shanghai and in the ports along the Yangtze River, although some are exported to northern China and Manchuria and some even to the United States where they may be found in Chinese eating houses. Chinese canned fruits are on sale on University Avenue in Berkeley. Very little of these canned fruits manufactured in Shanghai go to southern China because local canneries are there located at Canton, Hongkong, Macao, Swatow, and Amoy. Canned pineapples from Singapore sell extensively in this market.

Chinese canned fruits sell at retail in Shanghai in the No. 2 can for about 16 cents. Eight-ounce cans of jam sell for 12 to 14 cents. Close to the source of supply, these prices drop very low. In the neighborhood of the cannery, Chinese canned fruits are sometimes sold as low as 4 cents a can.

Chinese canned fruits are sold by the sales department of the native canneries through agents who receive a 15 per cent commission upon all sales. One feature of the sales policy of these canneries is to allow extended credit, dependent, of course, upon a known financial standing of the buyer. At times, Chinese canned goods are left on consignment in order to introduce them into the market. These business methods are naturally expensive so that the wholesale prices for Chinese canned fruits may be only 50 to 60 per cent of the retail selling price.

The increasing competition of Chinese canned goods is not caused entirely by their lower prices and large volume but also by the extended system of credits which Chinese canneries are able to employ and their intimate touch with the native dealers. Although the quality of Chinese canned fruit is now so far inferior to the American product as to present little real competition among those who are conversant with both, yet the quality of the Chinese product is improving, and already a few of these canneries are striving to approach the American quality, so favorably known among the small group of wealthy Chinese. If America is to have any extended canned-goods market in China,

* Bureau of Economic Information, Republic of China.

some large and sustained effort must be made to popularize the various small sizes. Such an undertaking would involve funds and effort beyond the present resources of the importing agents.

American canned fruits have been sold in central China for more than a quarter of a century. At the time when these were introduced the No. 2½ can was standard in America. This size therefore became standard in China for the American grade of packed fruits, which is there synonymous with quality. The purposes for which canned fruit is used are only those to which this size is adapted. The people to whom it sells are those who can afford this large size. Although in America other sizes have become popular, the No. 2½ can still holds the entire field in China because of the conservatism of the Chinese and their fear that new brands and new sizes may contain inferior products. All attempts, therefore, to digress from the No. 2½ can have been unsuccessful. To be sure, at best these attempts have been but half-hearted efforts, consisting merely of the passive offering of the smaller sizes. No representatives of American canned fruits have been able to devote the necessary time and money to acquaint the Chinese consumer with the smaller sizes available. They have been offered only to the native wholesalers and dealers who in turn have no particular interest in changing the demand. Although canned fruits in the No. 1 tall and the 8-ounce size are on sale in some stores, no large volume of these is sold.

Retail prices at Shanghai are given in the table below. For purposes of comparison, retail prices at Foochow, a typical out-port, are also included.

TABLE 34
CURRENT RETAIL PRICES, OCTOBER 1929, AMERICAN CANNED FRUITS
Prices per can

	Shanghai			Foochow No. 2½
	No. 2½	No. 1	8-oz.	
Apples	\$0.24	\$0.12	....	....
Apricots .....	.28	.16	\$0.12	\$0.34
Cherries .....	.38	.24	....	.45
Grapes .....	.20	.16	....	....
Peaches .....	.35	.16	.12	.34
Pears .....	.36	.16	.12	.36
Plums .....	.24	....	....	.34
Fruit Salad .....	.35	.18	....	....

Aside from the native canned fruits, American products dominate the market in central China. Importations from other countries are comparatively small. The figures in table 35, adapted from the returns of the Chinese Maritime Customs, illustrate that fact.

Of the canned goods imported into central China, probably 80 per cent of the cherries, pineapple, and asparagus is consumed by the Chinese and only 20 per cent by the foreigners. On the other hand, of the apricots and peaches imported, probably only 15 per cent are consumed by Chinese and 85 per cent by foreigners.

TABLE 35
CANNED FRUITS, IMPORTATIONS INTO SHANGHAI
Values in United States currency

	1927	1928
From Japan (including Formosa)	\$3,298	\$80
From Great Britain	6,384	3,208
From British India	440	446
From Singapore	7,266	16,541
From Canada	1,417	103
From the United States	134,321	134,161
From Philippine Islands	10,521	81
From France	120	690
From Germany	106	17
From Belgium .....	.....	137
From Italy	249	564
From Norway .....	.....	377
From Turkey	71	.....
From all others .....	.....	81
Total	\$166,381	\$167,842

Not more than 10 per cent of the total importations of canned fruit go further into the interior than Nanking, 215 miles up the Yangtze River. A few cans of American fruit are often on sale, however, at far interior points. In general, the importer in Shanghai has very few accounts with up-country dealers. The canned goods are sold to dealers in Shanghai, who in turn supply these up-country markets. Often these dealers in Shanghai own or have an interest in provision stores in the far interior. The intricate ramifications of the system of credits, transportation, taxes, and sales from Shanghai to provision stores in the interior are so complex that they seldom are glimpsed by those who look casually into this market, and only dimly understood by foreigners long resident in this country.

At points in the interior, prices rapidly increase. This is not only caused by the additional transportation involved but also by the local import taxes and other provincial duties common to the interior of China. Thus, the price of canned fruit will frequently be double the Shanghai price at an interior point.

American canned fruits are sold through a few import houses dealing in foreign foodstuffs who are agents or representatives of California concerns. These import houses sell to a large number of native wholesalers. The wholesalers supply local provision houses in the cities and act as distributors into the interior. City provision houses in turn may act as small wholesalers, even advancing credit to smaller provision shops that they supply.

In general, the import houses attempt to book native dealers for their year's requirements on the basis of the opening prices for the season. So powerful is the organization of wholesalers and provision



Throughout all of China restaurants abound. At these, American fruits might be popularized in Chinese dishes. The cook will feature any dish for a small fee.

houses and so closely do they watch prices that the relation between the importer and the system of Chinese distribution is both difficult and delicate. Practically all of the import houses recognize the power and influence of the native wholesalers and the necessity of holding their good will. The intimate system of inter-relation and of credit between the native wholesaler, provision house, and retailer in the interior makes it difficult if not impossible for the usual importing firm to conduct business except through the native wholesalers. Since such is the case, the agents are forced to protect the native wholesaler within his territory and to refuse to sell direct to provision houses or retailers. The system of Chinese merchandise distribution, extending back into the distant past, is so complex and at the same time so powerful that it dictates the business practices of all except a few of the very

greatest foreign organizations, which by their vast capital and large personnel have been able directly to introduce their imported articles into China on an extended scale.

Although this system of Chinese distribution operates on a relatively small margin of profit, the many successive steps through which the product passes from the time it leaves the cannery in America until it reaches the consumer in China, impose a number of additional costs which, under the present system, are a necessary part of the selling price. The cost of freight from San Francisco to Shanghai is not the only item in this expense. Freight averages \$14.50 a ton, or 47 cents a case of No. 2½ cans, or 2 cents a can. In the No. 1 tall, this freight charge is 1 cent a can; in the 8-ounce can it is only a little over half a cent. To this, however, must be added the insurance, which is one-half of one per cent of the wholesale value of the product, and the duty of 12½ per cent on the wholesale value. Thus, at recent prices, a bill might read as follows:

One doz. No. 2½ cans of peaches c.i.f. Shanghai	\$2.90
Duty per doz. cans .....	.26
Wharfage and other charges .....	.04
Total cost delivered Shanghai	<u>\$3.20</u>

or a delivered cost of 26⅔ cents a can.

For a dozen 8-ounce cans of apricots, the bill might be as follows:

c.i.f. Shanghai per doz. cans	\$0.925
Duty per doz. cans .....	.086
Wharfage and other charges .....	.010
Total cost delivered Shanghai	<u>\$1.021</u>

or a delivered cost of 81½ cents a can.

It may be recalled that these same 8-ounce cans generally sell for 10 cents in the United States, whereas in China they retail for 12 cents to 14 cents. At the rate of exchange in October 1929, the lowest on record for some years, 10 cents in United States currency was equivalent to 25 cents in local currency. If the 8-ounce cans were sold to retail for the equivalent of 10 cents in American money, it would at that rate of exchange be possible to sell four of them for a Mexican dollar. It is obvious, however, that at the present delivered cost and with the present system of distribution, the margin between the delivered prices in wholesale lots and the retail prices would not be sufficient to pass canned fruit through several hands and finally retail them for the equivalent of 10 cents in American money.

At the present prices of American canned goods it is improbable that any rapid or large development of this market can be made through the intricate and complicated selling system now used. The importing houses who represent American firms in the distribution of canned fruit are both unwilling and unable to expend the time, effort, and money necessary to break through the Chinese distributing system or, working with that system, to conduct a campaign to popularize American products upon the market. Either of these undertakings would be a major enterprise beyond either the present plans or the future possibilities of the import system now prevalent in central China.

At present, the small can of fruit, either in the 8-ounce or the 1-pound sizes has not been introduced to the Chinese people. It is true that certain sporadic efforts have been made in a limited way to induce wholesalers to buy a few of these cans. In general, however, the limited sales have been made only to foreigners. There is no certainty that the small cans can be introduced among the Chinese, but neither is there any evidence that they cannot be introduced. Although the small size is the logical method of developing this market, as yet the matter has not been tested in any effort proportionate to the volume of increased demand that would be opened if success were achieved. The exclusive use of the large can of fruit in China is based upon the fact that American fruits were originally introduced in this size only, and that dealers have continued to demand them because the people have known no others. Canned fruit has been used only on occasions for which the large size was fitted. It has become known only among those who could afford this size.

To change or to increase the demand so that the small tin would find additional uses among the upper classes and a new use among the middle classes is an undertaking which has not yet been started. Such trade promotion might bear very large results. The result would be somewhat dependent upon ability to lower the price of the small can, so that it would come within the range of the purchasing power of a large number of people and into successful competition with alternative imported foodstuffs.

Dried Fruits.—Most of the California dried fruits are not even as widely distributed over the interior as are canned fruits. California raisins, due to their extensive distributing system and trade promotion, are found almost everywhere. Prunes are practically the only other dried fruit which is on sale in the interior, and usually these can be bought only at the river ports along the Yangtsze as far as Chungking, 1,500 miles up the river.

Prices of dried fruits in Shanghai are not only determined by the California cost but also by other charges that must be added. Freight is about \$14.50 a ton from either San Francisco or Los Angeles to Shanghai. Insurance is about one-half of 1 per cent of the value. The duty at present imposed by China is 12½ per cent of the wholesale value. To these must be added wharfage and other local charges, usually amounting to about 2 per cent. The retail prices of American dried fruits at Shanghai are given in table 36. For purposes of comparison, prices at Chefoo are also quoted.

TABLE 36
CURRENT RETAIL PRICES, OCTOBER 1929, AMERICAN DRIED FRUITS
Prices per pound

	Shanghai	Chefoo
Apples	\$0.22	\$0.24
Apricots .....	.26	.32
Figs .....	.12	.20
Peaches .....	.20	.24
Pears .....	.20	.24
Prunes .....	.16	....
Raisins .....	.13	.12

Prices vary greatly at interior points from those quoted for the two ports above. Prunes selling at Shanghai for 16 cents a pound usually are offered in the interior for at least double the price, or 32 cents a pound or more, although it must be realized that prices vary greatly from town to town in response to the system of local taxation, local currency, and the distance and kind of transportation required.

Dried fruits are chiefly sold in 25-pound boxes from which they retail in pound lots. However, they are also offered in 1-pound cans and in 1-pound cartons. In some of the stores in the large cities, cans containing 2½ and 5 pounds may be found, but these are only in such distributing centers as cater largely to foreigners.

When the dried fruits come off the ship on arrival at Shanghai, they are stored in warehouses. Those packed in wooden boxes do not withstand the hot damp summers, and thereby considerable spoilage occurs. Much detriment has resulted to the market for dried fruits in central China by the old method of shipping in wooden boxes. Dried fruits in bulk may be stored in cool rooms with some success, but the only practical remedy throughout the summer months is to pack dried fruits in tin containers so that they will keep indefinitely.

Uncooked prunes are already used in some Chinese homes. It is estimated that of the prunes shipped to central China, 60 per cent are

consumed by foreigners and 40 per cent by Chinese. Of the dried figs, 95 per cent are consumed by foreigners and 5 per cent by Chinese. Of the apricots, pears, and peaches imported, practically all are purchased by foreigners.

As elsewhere in China, raisins have by far the largest sale of any California fruit. In dried fruits American raisins predominate to the almost complete exclusion of all others. Unfortunately, the statistics of the Chinese Maritime Customs group raisins and dried currants together in one classification. Since, however, the importations of currants are very small, the figures in table 37 may for practical purposes be taken as those for raisins.

TABLE 37
IMPORTATION OF RAISINS AND CURRANTS INTO SHANGHAI

	1926		1927	
	Pounds	Value	Pounds	Value
From the United States	3,973,866	\$301,942	3,236,800	\$249,240
From Philippine Islands .....	.....	.....	400	21
From Great Britain	4,733	602	3,666	760
From British India	2,533	168	1,066	99
From Australia and New Zealand	54,266	6,181	69,200	7,961
From Hongkong	95,200	15,975	113,333	15,770
From Singapore	24,000	3,972	38,133	8,199
From France .....	.....	.....	1,066	414
From French Indo-China	266	17	.....	.....
From Turkey	7,600	1,009	12,533	1,161
Total imports	4,162,464	\$329,866	3,476,730	\$283,695

Only a small portion of these imports are, however, consumed in and around the port of Shanghai. That city is a central distributing point for the Sun-Maid Raisin Growers Association which, at this place, repacks the raisins and distributes them to other points. The following figures giving the re-exports for the same years indicate the extent of this re-distribution.

TABLE 38
RE-EXPORTS OF RAISINS FROM SHANGHAI TO OTHER CHINA PORTS

	1926		1927	
	Pounds	Value	Pounds	Value
To Northern China Ports	801,733	\$63,521	418,533	\$33,728
To Southern China Ports	802,666	63,615	181,466	14,623
To Yangtze Ports	400,533	31,734	361,333	29,119
Total, re-exports in China.....	2,004,932	\$158,870	961,332	\$74,470

Raisins are shipped into Shanghai in bulk and are there repackaged and recased for sale throughout the interior and for export. In tins and cartons of 5 pounds, 1 $\frac{3}{4}$ pounds, 1 pound, and smaller they are sent out in case lots to local dealers. For the small paper envelopes, which sell for two or four coppers, the packaging is done by the local dealer who receives the small envelopes with a bulk boxed shipment. The Sun-Maid Raisin Growers Association sells only for cash. About fifty salesmen, employed by the Sun-Maid Raisin Growers Association,



This small paper envelope has popularized raisins over all of Eastern Asia. Exports of raisins have increased 1000 per cent since it was introduced. More raisins are now sold in Asia than all other American fruits combined. Any commodity to sell extensively in Asia must be marketed in small quantities.

tour the interior selling to local dealers for wholesalers recognized by the association. The trade promotion work which has proceeded for a number of years, coupled with the selling organization centralized at Shanghai have popularized raisins among the Chinese people. However, raisins have not yet saturated the central China market. Increased sales can be made if and when raisins become more extensively used in bakeries and in the homes.

Among all dried fruits other than raisins, prunes hold the best possibilities for expansion of markets. Small-sized prunes, largely pit, and lacking in sugar would have little success. The Chinese already have the dried jujube, or 'black date,' of which they are fond.

These are sold very cheaply on the streets. The prune might be popularized as an improvement on and substitute for the jujube. Prunes would hold an added attraction because of their laxative qualities and their beneficial influence upon the health of the user. Those promoting the sale of prunes could make an appeal to millions of Chinese searching for good health. As a food or refreshment alone, it is doubtful whether prunes would have as large a sale as raisins because of the large size of the fruit and the small number that could be put up in a package within the reach of the low purchasing power of the people. The advantage of the prune lies not only in its food value but also in its medicinal value, which might be successfully exploited to promote its sale.

In the beginning, prunes should be offered in a package holding $1\frac{1}{2}$ or 2 ounces, and even sold by hucksters one prune at a time. If sold in the small packages, there should be an even number of prunes, to avoid the Chinese aversion to uneven numbers. If prunes could be retailed at the general rate of 12 cents a pound, which at this writing is equivalent to 30 cents in local currency, this price would then enable one prune to be sold for one copper, the smallest unit of value in general circulation. After the product became successfully known to the people in the large cities and in the interior, larger packages would doubtless be in demand. If prunes could then be so packed that the container itself would be useful, this would add an attractive feature to those who purchased them. Some American commodities already successfully promoted in China have been sold by dealers so nearly at cost that the container itself was their only profit.

Trade Promotion Methods.—The problem of trade promotion in central China resolves itself into creating a desire for American fruit that can be satisfied by a small initial purchase at a price which will successfully compete with other products offered to the same people.

Trade promotion to be conducted for canned or dried fruits must be undertaken in a thorough manner in each locality in which the commodity is to be promoted. This does not necessarily mean that it must be spread over all central China in any one period, but rather that it must be sufficient in volume in each place where it is attempted to attract and hold popular attention. Further, it must be maintained for a long enough period for the market to be fully realized.

In general, trade promotion in central China must take the form of an educational campaign to acquaint the people with the product. It must be headed by those who have an intimate knowledge of Chinese living and Chinese character, as well as of business practices in

the Orient. The product should be distributed through a series of branch offices that carry stocks on hand so that the native dealers or wholesalers may obtain a supply on short notice. The packages should be placed on sale in many local stores, even if it becomes necessary to put them there on consignment. The price of these must be so fixed that the dealer will be satisfied with a reasonable profit in order that the cost to the consumer may be maintained as low as possible. A system of bonuses so devised that dealers making large sales would be given a rebate or present would doubtless be effective in pushing trade.

The many restaurants are an excellent place to popularize canned goods. If small cans were placed there on sale, even if they were only displayed, it would serve as a means of introduction that would be invaluable. It is not beyond the bounds of possibility that the many bake-shops throughout China might be taught to use American fruit and to popularize pastries in which fruits are used.

Free samples have been the basis of much trade promotion in China. Sometimes these are distributed in connection with entrance fees into theatres, amusement parks, and other places of similar character. Sometimes the samples are sold at a very small price to those who send a letter in response to an advertisement. It is difficult in China to distribute samples from house-to-house and reach the people who will consume the commodity. Usually house-to-house canvassers are met by servants. In such cases, the free sample never reaches the master or mistress of the house.

All advertising must, of course, be in Chinese in places and publications where it will attract Chinese attention. It seems needless to state that advertising in foreign publications in English would not be effective, yet much money has been wasted in China by duplicating advertising effectively used in America but which proved to be a total failure in China.

The brand, or 'chop,' used for the commodity should translate readily into Chinese and when so translated should convey in some measure an element in health and prosperity. The name of California conveys nothing in such a brand and might, in fact, antagonize. A local name based upon a Chinese tradition would have far greater appeal. Illustrations used in advertising must be simple and perhaps humorous. The most successful brand of cigarettes in China is careful to have its advertisements appeal to these fun-loving people.

TABLE 39

DIRECT FRUIT EXPORTS FROM CALIFORNIA TO HONGKONG

Kind of fruit	1927		1928		1929	
<i>Canned</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Berries.....	18,922	3,516	10,005	1,939	11,658	2,468
Apples.....	2,410	245	6,703	793	2,546	275
Apricots.....	61,211	6,222	50,434	5,756	48,619	5,955
Cherries.....	44,811	6,580	28,035	4,767	37,789	7,105
Prunes.....	12,059	1,240	1,101	68	4,079	427
Peaches.....	128,137	12,228	109,700	11,651	148,547	17,102
Pears.....	97,391	11,420	53,129	6,739	66,735	8,898
Fruit for salad.....					45,467	7,452
Other canned.....	36,897	3,707	38,418	4,303	32,902	3,904
Pineapples.....	10,519	1,310	4,943	689	9,182	1,111
Jams, jellies, etc.....	48,443	11,885	42,699	10,694	19,389	6,473
Total.....	460,800	58,353	345,137	47,399	426,913	61,170
<i>Dried</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Raisins.....	295,053	26,512	957,505	67,214	1,833,602	95,365
Apples.....	22,489	3,050	30,505	4,816	28,118	4,136
Apricots.....	10,395	2,084	13,484	2,523	12,030	2,137
Peaches.....	825	134	1,275	154	1,821	230
Prunes.....	94,261	7,914	117,334	9,220	84,226	8,359
Pears.....					2,850	284
Other dried.....	59,336	5,398	62,868	5,730	33,732	4,107
Total.....	482,359	45,092	1,182,971	89,657	1,996,379	114,618
<i>Fresh</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>
Grapefruit.....	410	2,003	337	1,759	377	1,645
Lemons.....	2,619	14,485	2,494	17,116	2,459	14,884
Oranges.....	14,249	72,754	13,264	80,715	17,025	90,170
Apples.....	10,383	18,746	15,787	28,760	7,245	16,594
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Berries.....					24	5
Grapes.....	376,795	27,799	448,037	39,517	498,858	38,262
Pears.....	13,620	1,035	31,888	3,336	5,370	425
Peaches.....	220	18			60	10
Other fresh.....	595	55	2,300	180	5,755	416

SOUTHERN CHINA

All that area of China south of a point on the coast midway between Foochow and Amoy may be considered as southern China. It includes the provinces of Kwantung, Kwangsi, and Yunnan, totaling about 200,000 square miles, with a population variously estimated at 50,000,000 to 75,000,000 persons. In southern China are the great cities of Hongkong and Canton. The former is a British crown colony with a population of about 977,000. Canton, distant ninety miles up the Pearl River, is the metropolis of southern China. It is a distributing center for the interior as well as an important political and social focus. The population of Canton is 811,000.

The colony of Hongkong is, of course, under British law. It is practically a free port. Goods shipped from there into the interior of China pay the usual Chinese customs duties at ports of entry from Hongkong. Figures giving imports and exports from Hongkong are always very large, since the city is chiefly a point of trans-shipment. Many of the steamship lines running eastward from Europe terminate at Hongkong. Others from the western coast of America and from Europe through the Panama Canal touch or terminate at this port. Subsidiaries of these great world-wide steamship companies, as well as certain local steamship lines, make Hongkong their home port. Thus, at this city, goods are trans-shipped between the western world and the innumerable ports of the Far East. Statistics of imports and exports at Hongkong are consequently deceptive, since they include commodities which enter this port only to leave again on another ship. Nevertheless, the city population of 977,000, including about 16,000 Europeans and 500 Americans, is a considerable market for imported products.

Canton, on the Pearl River, is the great Chinese city of the south. In 1928 its foreign imports were over \$29,000,000 and its exports over \$51,000,000. The Cantonese are proverbially progressive, ambitious, and turbulent. Canton has recently been the center of radical political doctrines and of anti-foreign propaganda. Political changes have been frequent with consequent loss to business and to progress. Owing to these disturbed conditions, most large business houses, both foreign and native, now make their headquarters in Hongkong. The comparative security of Hongkong has led many to transfer both life and property from disordered Canton to the safer environs of the small rocky island over which flies the British flag.

Four railways are operated in southern China. Of these, the two principal lines are the road between Hongkong and the railway originating in French Indo-China which climbs up to Yunnanfu, over the southern border. Much transport is, however, by junks and steamers. The jagged coast line of over 1,000 miles with numerous bays and harbors swarming with native craft furnishes a major highway along the ocean front and territory tributary thereto, while the West, North, and East rivers, joining at Canton, create an arterial system for river traffic into the interior.* However, the major portion of southern



The jagged coast line and numerous rivers of southern China furnish highways on which native junks carry freight at low rates.

China is reached by coolies who transport on their backs a load of 70 pounds which they carry some twelve miles a day at an average wage of 60 cents.†

From the small area known as the Sunning district near Canton have come practically all the Chinese who have migrated to America. Starting in the early days, it has become traditional with the people of this small region to venture to America whenever the opportunity opened. Many of these return to their native district to pass their last years, or if perchance they die abroad, their bodies are shipped here for burial. In the past fifty years many millions of dollars have been

* U. S. Dept. Commerce. "Sales Territories in China," C. K. Moser.

† U. S. Dept. of Commerce, Trade Promotion Series No. 38 (1928), 417, J. Arnold.

poured into this region to support families living in China or to purchase property with which to ease the declining years of the laborer resident in the United States. In this locality one can meet many persons who speak the American dialect with fluency if not with precision. From Canton itself have migrated many of the businessmen as exporters and traveling merchants who have come to America. All of these, returning to their native land, have brought into this southern section of China a knowledge of western goods and American habits, so that imported articles are more keenly appreciated here than elsewhere in China.

The delta of the Pearl River, which in turn is formed by the confluence of the North, East, and West rivers, is a rich section of the country. Silk-growing has prospered in this region, and the people are relatively well-to-do, as judged by Chinese standards. The city of Canton is known as a center of progress, and although leading a checkered career as a result of numerous political theories, it has progressed in influence and wealth beyond that of most inland cities of China.

Thus, this section of southern China presents an opportunity for trade promotion in low-priced American products beyond that of many other regions. The progress of its people, their knowledge of western ways, and their relative prosperity make this a comparatively fertile field.

The purchasing power of the people is difficult to estimate. Those who have the best knowledge of them, through many years of business contact and association, testify to the comparative extravagance of even the coolie classes which would lead a man earning 40 cents a day to buy a ten-cent package of fruit provided this happened to take his fancy. Large American business organizations estimated that as high as 50 per cent or even 75 per cent of the people were able to buy a package of dried fruits costing 5 or 10 cents provided they desired to purchase it. Others less optimistic, placed this purchasing power at only about 10 per cent of the city population. Most estimates, however, tended toward the higher figure. In the far interior, conditions are less prosperous. Military adventures and political experiments have upset the usual channels of trade, thereby depriving the people in the back country of much of their normal livelihood.

Southern China has a semi-tropical climate, hot and humid from April to September, but cool and damp in winter. It is therefore a region in which native semi-tropical fruits flourish but in which imported fresh fruits deteriorate rapidly unless under the best refrig-

eration conditions. In summer dried fruits, unless packed in tin-lined moisture-proof packages, are quickly rendered unfit for sale and even certain canned fruits do not withstand the hot season.

Fruit in the Southern China Diet.—Most Chinese in the southern area have two meals a day, although in large centers of foreign influence, such as Hongkong, three meals a day have become prevalent among those who have had frequent contact with foreigners. Because the Chinese believe it is desirable to eat very large amounts of their staple food, which is rice, they do not at meals eat sweets which are



Chinese who eat two meals a day are likely to augment these in the middle of the morning and afternoon by purchases at one of the numerous street stands.

supposed to detract from the appetite, thereby lessening the ability to consume large quantities of rice. With the rice diet are served various other foods such as pork, beef, vegetables, and fresh, salted, or dried fish. These, however, are largely intended to make it possible to eat more of the staple food since, according to the Chinese, an unlimited amount of rice could not be eaten at one meal unless accompanied by these other foodstuffs which give flavor to the rice. Persons of the richer classes supplement their rice diet with chicken, with more expensive vegetables, and with the better grades of beef and pork. They also may eat fresh fruit at the end of a meal, after they have consumed as much of the staples as is possible.

Those who eat only two meals a day are likely to augment this in the middle of the morning and in the afternoon by a sweetened gruel or other light foods, intended to placate their growing appetite until the time of the next meal. The wealthy may also have an additional meal at midnight. In such cases they rarely rise before noon on the following day.

The Chinese like fresh foods rather than those that have been kept in cold storage. Thus, fish are sold as they swim about in a tank in the markets, the purchaser selecting his fish from the lively specimens before him. Refrigerated meats from abroad have not found popularity, the Chinese preferring the inferior meats of their own land because of their freshness.

Normally, the Chinese do not cook fruits and do not understand the simple processes of preparing American dried fruits. Indeed, all cooking is somewhat of a problem in much of southern China because of lack of firewood. The country has been gradually deforested through ages past, so that wood is scarce and expensive in many places. In much of the interior, rice or wheat straw is used for both heating and cooking. This straw tied in bundles is put in a stove where, by means of bellows, great though short-lived heat is generated.

The Cantonese are famous for their culinary art. It is frequently said that they live in order to eat instead of eating in order to live. Wealthy Chinese in southern China display their position and success, not by the extravagance of their dress or the magnificence of their homes, but by the number of their entertainments in the form of banquets and dinners. Among the wealthy classes, these feasts are frequent. The amount of money expended by Chinese in entertaining their friends is very large. Since the restaurants serve a central dish for each course, rather than an individual service as customary in the western world, the number of persons at the table may be somewhat indeterminate and may fluctuate during the meal. Guests come and go. The restaurant charges by the dish rather than by the number of persons served. Normally, there may be eight to twelve persons at a table, the entire dinner costing about \$20, including the wines, tips, and incidentals. It is at these dinners and feasts that imported fruits are served. They furnish a novel imported product to grace the dinner as one of its final courses.

Fresh Fruits.—Southern China has always been noted for its many varieties of fresh fruits. The semi-tropical climate prevalent over most of the area has enabled so wide a range of fruits to be grown that the people are accustomed to eating these throughout the entire year.

Fresh native fruits are obtainable in the cities at relatively low prices. Fruits grown in nearby territories are shipped to Hongkong and Canton at prices much lower than that of fruits brought from America.

Although prices vary with the season of the year, table 40 indicates the seasons in which the most prominent native fresh fruits are available and gives representative retail prices in four cities of southern China.



Southern China has always been noted for its many varieties of fresh fruits. Every street stand has numerous kinds of fresh fruit for sale.

All these fresh fruits are sold to the people through numerous retail fruit stands on the streets as well as by hawkers who go from house to house. So general is the consumption of fresh fruits, even among the poor, that it is not uncommon to see segments of pomeloes sold at a copper per segment, which is about equivalent to one-sixth of a cent—and for pears, bananas, and other fruits to be sold in pieces, one piece to each customer.

American fresh fruits are chiefly in demand among the foreign population and by the well-to-do Chinese who use these to supplement the native fruits and to add variety and novelty to dinners and other festive occasions. There are also certain seasons of the year when the native fresh fruits are available in smaller variety during which time American fruits have a larger sale.

American oranges are in demand throughout the entire year, but chiefly during the summer. At the present time, the market uses those running from 150 to 252 to the box, the smaller fruits being more prevalent at Canton. About 10,000 boxes represent the usual market



It is not uncommon on the street stands of southern China to see fruits sold in pieces, one piece to a customer.

TABLE 40
NATIVE FRESH FRUITS, SOUTHERN CHINA

	Seasons	Retail prices per pound			
		Hongkong	Canton	Swatow	Amoy
Apples.....	July-Nov.....	\$.08	\$.08	\$.06	\$.06
Bananas.....	All year.....	.02½	.02½	.02½	.02½
Grapes.....	June-Sept.....	.03	.03	.10	.10
Longans.....	June-Aug.....	.03	.03	.05	.05
Loquats.....	May-July.....	.05	.05	.07½	.07½
Lichees.....	May-July.....	.05	.05	.06	.06
Mangoes.....	April-June.....	.07	.07	.06	.06
Oranges.....	Nov.-April.....	.03	.03	.04½	.04½
Peaches.....	May.....	.08	.08	.06	.06
Pears.....	Aug.-Oct.....	.08	.08	.03	.03
Persimmons.....	Sept.-Nov.....	.04	.04	.02	.02
Plums.....	April-May.....	.03	.03	.04	.04
Pomeloos.....	Oct.-May.....	.05	.05	.02½	.02½
Pineapples.....	July-Sept.....	.08	.08	.07	.07

consumption. Lemons are chiefly used during the hot season for the making of lemonade.

Grapes are chiefly in demand from October to January. The price of these varies greatly with the season, the supply from America, the market at the particular time, and with the competing fruits that happen to be in the local shops. During recent seasons the market has been frequently glutted, with consequent cancellations of orders due to the low prices. The demand for grapes at the prevailing price in competition with the native fruit is so small that large shipments easily over-supply the market, with consequent immediate depression in price to a point below cost.

Of all American fruits imported to Hongkong and Canton, apples are the most important and the most popular, about 30,000 boxes being consumed in southern China. Most of these come from Oregon and Washington.

Peaches, pears, apricots and plums are greatly appreciated by foreign residents, since, due to difficulties in shipment, these come into the market at infrequent intervals. However, the demand is from such a small number of individuals that the market is precarious and may easily be over-supplied. Repeated difficulty has been experienced with all the softer, thin-skinned fruits from America. The long voyage coupled with the hot weather and rough handling frequently result in the fruit being received by the retailers in an unsalable form. On the other hand, shipments of fruit from Japan and Korea have been increasing owing to the brief voyage and to their superior packing in small containers in which there is sometimes a compartment for each fruit. Although fruit from the Japanese territory is often inferior in flavor, its fine appearance on arrival leads it to be selected by dealers and storekeepers in preference to American fruit. The quantities of peaches, pears, and apricots from America are small. Generally, however, peaches and pears retail at about 27 cents per pound in Hongkong. They are seldom shipped to Canton because of the lack of refrigeration.

Wholesale and retail prices of American fruits vary at different seasons. In table 41 representative prices at the time this investigation was made are given. These prices are particularly enlightening when compared with the prices of local fruits given in the preceding table.

Fruit from America is generally brought into Hongkong through local representatives of American exporters. These order fruit in quantities based upon orders received from local dealers. Under this method payment is made by the dealers when the goods are received.

From dealers not so well known or established a contract order is required and the original draft is drawn directly upon the dealer.

Across the Pacific to Hongkong, refrigerated freight costs about as follows: grapes, \$1.50 a keg, or \$0.80 a box; oranges \$1.50 a box; lemons \$0.75 a half box; grapefruit \$1.55 a box; and melons \$32 a ton. At Hongkong, refrigeration space is available; one large plant having 15,000 cubic feet of refrigeration. For this space storage costs are relatively high, being at the rate of about 17½ cents per box of fruit per month.

TABLE 41

CURRENT PRICES, AMERICAN FRESH FRUITS, OCTOBER 1929, SOUTHERN CHINA

	At wholesale		At retail			
	Hongkong	Canton	Hongkong	Canton	Swatow	Amoy
Apples.....	\$3 per box	\$3 per box	9c per lb.	10c per lb.	14c per lb.	14c per lb.
Grapes.....	13c per lb.	16c per lb.	18c per lb.	22c per lb.	.....	28c per lb.
Lemons.....	\$4-\$5 per ½ box	\$4.50 per ½ box	3c-4c each	4c each	.....	6c each
Oranges.....	\$6-\$7 per box	\$7 per box	4c-5c each	5c-7c each	.....	7c each

From Hongkong, American fresh fruits are shipped to southern points in French Indo-China and Siam, as well as to northern ports on the China coast, such as Foochow, Amoy, and Swatow. It is impossible to measure accurately the amount of the shipments to northern ports, since cargoes are often smuggled into northern ports from Hongkong, thereby avoiding payment of the Chinese customs duties. Since, however, the boats going to the northward on the China coast do not have refrigeration space, the shipments to those ports are confined to fruits that have the best carrying qualities. Recent direct refrigerator service from San Francisco to French Indo-China makes it possible to ship to that territory without trans-shipment.

Merchants in Canton purchase fruit from dealers in Hongkong who market through an associate or business connection in Canton. Street peddlers selling fruits in Canton usually send to Hongkong for supplies of those fruits through a friend in that city or through some associate working on one of the river boats. Merchants usually obtain these fruits from Hongkong on thirty days' credit, but the street peddlers pay with cash for the goods purchased. From Hongkong to Canton there is no refrigeration and although the trip is short, taking only about six to eight hours in actual transit, the warm climate of this area throughout the summer months makes the shipment of many fresh fruits to Canton an undesirable undertaking.

American fresh fruits, now chiefly used by foreigners, would find an additional outlet only among the wealthy Chinese. During the season that the native grapes are not in the market, American grapes, because of the possibility of cutting the bunches into small clusters, sell on fruit stands to the lower classes. Such methods of selling American fruits are an exception, however, and sales thus made aggregate very little. Both the expense and the difficulty of refrigerating American fruits on the long voyage from the Pacific Coast to points



A street peddler in Canton purchases his stock of fruits in small quantities and carries it from house to house.

in southern China make it difficult if not impossible to increase their sale to any large degree, except among the wealthy class. Better knowledge of refrigeration methods, which in turn would reduce spoilage, would create an opportunity for a sale of some of the better grades of peaches, apricots, plums, and pears among the limited group of foreigners and wealthy Chinese in Hongkong. Owing to the lack of refrigeration from that point to Canton and to the interior, their sales must be confined to the British city and its immediate environs.

Canned Fruits.—In Hongkong there are four canneries manufacturing native canned fruits; seven are located at Canton, and seven more at Swatow. There are doubtless others in southern China. Canned fruit from other areas comes into this section of China, the

largest amount being pineapple imported from Singapore. The total volume of Asiatic canned fruits is thus very large. It is a familiar sight in Hongkong and Canton to see a large display of Chinese canned goods on sale at cigarette stands and in the entrance lobbies of Chinese restaurants. The largest output from the canneries is ginger and lichees. Pears and peaches, as well as other fruits, are canned in smaller amounts. Normally, native canned fruits are put up in a No. 2 can which sells at retail for 10 cents or less. In the vicinity of the canneries canned fruits sell for even lower prices. This is indicated in table 42.*

TABLE 42

CURRENT PRICES, NOVEMBER, 1929, CHINESE CANNED FRUITS, SOUTHERN CHINA
In No. 2 Cans

	Wholesale Per Case of 48 Cans f.o.b. Canneries Swatow	Retail	
		Swatow	Amoy
Lichees	\$2.86	\$.08	\$.088
Longans	2.86	.08	.088
Loquats	2.80	.08	.....
Peaches .....	.....	.068	.....
Pears	2.48	.076	.10
Pineapple	2.20	.068	.08

Salesmen representing the native canneries tour the country, soliciting orders from merchants. Chinese canned goods are normally sold on thirty days' time in Hongkong, and sixty days' time in Canton. It was formerly the practice to sell on the yearly payment plan, by which final settlement was made at the Chinese New Year. Since the recent disturbances in southern China this custom has largely passed away. A considerable volume of these native canned fruits is exported to Singapore, Canada, Australia, and other places where numbers of Chinese reside. A measurable amount is exported from China to the United States. In 1928, fruits and fruit preparations were exported to America from Canton alone amounting to 1,703,555 pounds, valued at \$162,887.

American canned fruits are popular among Chinese of wealth as well as among those who have come in contact with western civilization. Because of their higher prices, the consumption is small when compared to the large population of southern China and the affluence of a considerable number of the people. Possibly one-half of the imported cherries and asparagus is consumed by Chinese and perhaps one-fourth of the peaches, apricots, and pears.

* Prices from survey of G. O. Woodard, Trade Commissioner, Shanghai.

Retail prices of American canned fruits are necessarily higher in Canton than in Hongkong due to the additional transportation costs imposed thereon, as well as the import duty when entering Chinese territory. Hongkong, as a British free port, enjoys an exemption from Chinese tariffs not shared by other points in southern China. The approximate retail prices in the fall of 1929 of American canned fruit in four cities of southern China are shown in table 43.

TABLE 43

CURRENT RETAIL PRICES, NOVEMBER 1929, AMERICAN CANNED FRUITS
SOUTHERN CHINA

	Per	Hongkong	Canton	Swatow	Amoy
Apricots.....	No. 2½ can	\$. 24	\$. 29	\$. 34	\$. 30
	8 oz. can	.09	.14	.10	.14
Cherries.....	No. 2½ can	.37	.41	.44	.44
	8 oz. can	.13			.18
	No. 2½ can	.37	.40	.48	.44
Fruit Salad.....	No. 1 can	.33	.35		.26
	8 oz. can	.13		.12	.18
Grapes.....	No. 2½ can	.30		.32	.30
Peaches.....	No. 2½ can	.24	.26	.34	.30
	8 oz. can	.09	.11	.10	.14
Pears.....	No. 2½ can	.29	.34	.38	.34
	8 oz. can	.11			
Pineapple.....	No. 2½ can	.26	.30	.36	

Prices in the interior vary, dependent upon the distance that the goods must be carried and also upon the local taxes. On the average, at interior points, American canned fruits are 40 to 50 per cent higher in price than at Hongkong, and about 25 per cent higher than at Canton.

Canned fruits from the United States to Hongkong pay freight of \$14 per ton. This is equivalent to about 45 cents per case of No. 2½ cans, or 35 cents per case of No. 1 cans. Insurance costs 40 cents per \$100 valuation. Freight is generally landed on the Kowloon side of Hongkong harbor, opposite the main city, so that trans-shipment charges equivalent to about 4 cents per case must be paid for its passage from the wharf to Hongkong. If the canned fruit is to be transported to Canton, it is moved up-river by freight at a cost of 7.8 cents per hundred pounds. Lighterage and deliverage charges at Canton average about 4.8 cents per hundred pounds. To this must be added the duty, equivalent to about 87 cents per hundred

pounds. The delivered costs at Canton over those at Hongkong are thus about 1 cent a pound.

In addition to the standard No. 2½ can of imported fruit, smaller sizes are on sale in some of the best stores in Hongkong and Canton, especially those catering to foreigners. The small sizes have as yet found but little sale, since the Chinese in southern China, as elsewhere, are accustomed to the large can of American fruit, and to its use only in connection with banquets, dinners, festivals, and as presents. Furthermore the small tins of fruit are now on sale at prices higher than is consistent with their original cost. This is in part because they are used by foreigners who, to the Chinese mind, can afford to pay high prices, but also in part because the small size is such a novelty that the merchant buying a case of the small cans undertakes some risk in forecasting their sale.

The distribution of American canned fruits in southern China beyond the cities of Hongkong and Canton is relatively limited. In the far interior, native canned fruits predominate, the consumption of American canned fruits being mainly among the missionaries and the representatives of foreign business houses.

American canned fruits have maintained their market in southern China because of their high quality rather than because of any promotion or salesmanship that has been done looking toward greater distribution. Sales of American canned fruits are likely to dwindle rather than increase unless the whole method of distribution is improved. By the present system of indenture, goods must be ordered far in advance from America through a local agent who is paid a small percentage commission, which may be divided with a Chinese sub-agent. It is improbable that these agents, often handling several other lines and commodities, can spend much time, effort, or money on the promotion and sale of American canned fruits. It is not unusual to find these firms handling hardware, tools, toilet articles, cotton goods, and canned fruits. American fruits can necessarily occupy only a small amount of their time and attention. Chinese canned goods are extensively sold and distributed. This is not only because of their low price, but also because of the system of salesmanship and of credits emanating from the canning factories to the final dealer. Chinese canned fruits sell extensively despite their poor quality—not because of it. American canned fruits have some sale despite their system of marketing—not because of it.

At conferences held in Hongkong and Canton, the opinion was expressed that considerable sales of the small sizes of American canned fruits could be made in southern China provided they were sold at

lower prices than now prevalent so that the small can would not be so heavily penalized by the caution and the profits of those who handle them. Eight-ounce cans retailing at about 25 cents in Hongkong currency, or 10 cents in American currency, would find comparatively large sale among the Chinese population if they were properly introduced. American peaches, pears, and apricots are all appreciated by the Chinese, particularly by those who have come in contact with western ways. At present, their consumption is confined to festive occasions and to the small numbers of wealthy persons to whom low cost is not of primary importance.

An increased business in American canned fruits in southern China is dependent upon the establishment of branch houses carrying stocks on hand, directed by representatives thoroughly cognizant of the Chinese market, who give their whole time and attention to the enterprise. In addition, it would be necessary to devote a substantial sum to various forms of trade promotion over a series of years. The Chinese market reacts but slowly to new influences, but nevertheless it does react. It would furthermore be necessary to reduce the size of the initial purchase through popularizing the small can and decreasing the cost to the lowest feasible price. This would not necessarily mean that sales would be limited to this size, but rather that canned fruits would be introduced to a new class of people who did not previously use them. At present the use of American canned fruits is confined to banquets and festivals. This has been brought about by the high cost of the commodity and the large size of the package in which it was marketed. The small can might be expected to find a new use among a new class of people.

Dried Fruits.—In southern China, the people are accustomed to the use of dried fruits as a confection. Many of these are prepared with syrups and sugars, and sold by native dealers and hawkers. In Hongkong, native dried apricots sell for 22½ cents a pound; so-called “golden dates” are 30 cents a pound; a hard, dried olive sells for 22 cents a pound; while dried lichees, greatly esteemed by the Chinese, are sold at over 50 cents a pound.

American dried fruits suffer under the difficulties inherent to the semitropical climate of Hongkong and Canton. Dried fruits, with the exception of raisins, have been badly handled in southern China. Put up in the old-style wooden boxes, as in drier and colder climates, they have repeatedly suffered spoilage on ships, in warehouses, and in the stores of retailers. Raisins, prunes, apricots, and peaches are the most popular dried fruits, in the order named, but the volume of raisins consumed greatly transcends that of all others combined.

Excluding raisins, perhaps only 10 per cent of the net imports of American dried fruits into Hongkong are trans-shipped to interior points in China; except raisins, the great bulk of all of the dried fruit is consumed by foreigners in Hongkong and Canton. Including raisins, perhaps one-third of all dried fruits are shipped to interior points.



Chinese dried fruits are extensively manufactured in southern China. These are dipped in a preparation of honey or sugar to make them sweeter.

TABLE 44

CURRENT RETAIL PRICES, NOVEMBER 1929—AMERICAN DRIED FRUITS
SOUTHERN CHINA

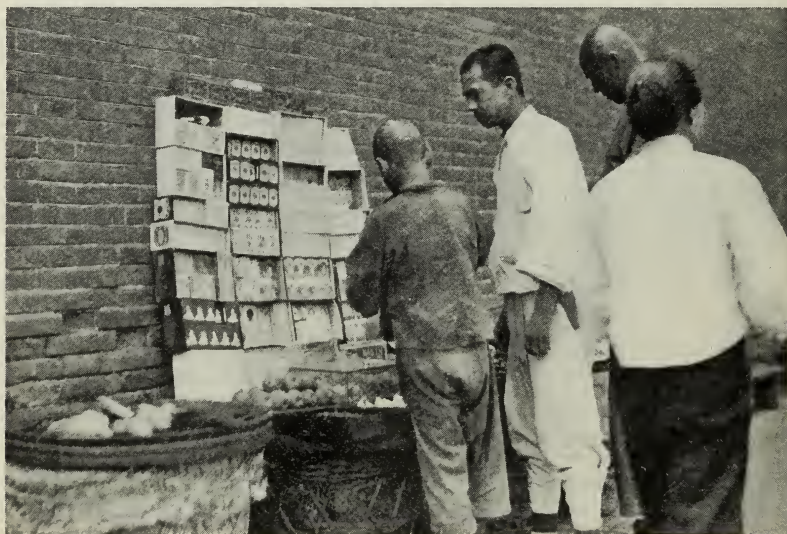
Prices per pound except as noted.

	Hongkong	Canton	Swatow	Amoy
Apples	\$0.26	\$	\$	\$0.30
Apricots .....	.30	.27	.34	....
Figs .....	.13	.17	....	....
Peaches .....	....	.27	....	....
Pears .....	.30	.27	....	....
Prunes .....	.18	.18	.20	.20
Raisins (in 15-oz. cartons)	.09-.11	.09-.11	.10	.10½

Among the dried fruits, the raisin is the only commodity for which modern salesmanship has been shown, and which in turn has reached any volume of sale worth serious consideration. Raisins received at Hongkong in summer are largely repacked at that place by lining the case with tin and refilling it with raisins, either in bulk or in cartons. Cartons of 15 ounces and 1¾ ounces are sold throughout southern China, as are also small paper envelopes which are retailed for a few coppers. In the carton weighing 15 ounces, 45 of these are packaged in a case weighing 43 pounds. The small 1¾ ounce

cartons are put in a display carton holding 24 small cartons. Six display cartons, holding in all 144 small cartons, are packed in a case weighing about 22 pounds. The packaging of raisins is done at the central receiving point at Hongkong, except in the case of the small paper envelopes which are filled by the local dealer who retails them.

Everywhere throughout southern China, California raisins are known; about 1,300,000 pounds of raisins a year are consumed. They are the only American fruit utilized by the middle and lower classes of the population. Their use undoubtedly has been brought about not



Cigarette stands on the streets of southern China sell native fruits and California raisins. Everywhere throughout eastern Asia California raisins are known. Packaged in small containers, they can be bought by the masses of the people.

only by the liking of the people for them but also by their reputed medicinal value. The slogan "Have You Had Your Iron Today?" has had even a greater utility in China than in America. The little red package of California raisins has found a real popularity among the Chinese, from which it is unlikely to become displaced. Raisins generally sell at slightly lower prices than in America.

Prunes are more largely used among the foreign population than among the Chinese. The spoilage due to shipping prunes in wooden boxes from America to southern China has retarded the sale of this fruit in that area. Owing to the system of sales, losses due to spoilage during transit from California are borne by the buyer. In the hot,

sub-tropical climate of summer, prunes become moldy and infested with insects within a short time. This occurs not only after the boxes are opened, but sometimes during the voyage. Dealers are therefore reluctant to order prunes from America during that season of the year. Prunes could undoubtedly be popularized among the people of southern China. Whether their sale would ever equal that of raisins is a matter of some doubt. Their ultimate volume of consumption cannot be forecast at this time, since no effort toward their promotion has been made. They should be packed not only in small cartons, bringing them within the purchasing power of the small



Native dried fruits wrapped in waxed paper sell extensively in small packages. They are popular because they are said to be "both healthy and digestive."

consumer, but also in a smaller case—tin-lined during the summer months—thus providing a smaller unit of purchase for a retailer stocking them.

The whole study of the adaptation of dried prunes to the tastes and likings of the people of southern China must devolve upon experimentation made on the ground by some agency interested in their distribution. Possibilities in this regard are indicated by the fact that Chinese hawkers have of their own volition, treated native prunes with sugar, and wrapped them in waxed paper on which are printed Chinese characters testifying to their health-giving qualities. Another indication was the frequent inquiry whether pitted prunes could not be shipped from America. Furthermore, American dried prunes are

sometimes sold as a confection on street stands along with the native candies and confections.

White figs have obtained some popularity among the Chinese as a remedy for colds and constipation, but the demand is relatively small. Other dried fruits are almost entirely used among the foreign population. Figs from California might reach some outlet among the people of southern China.

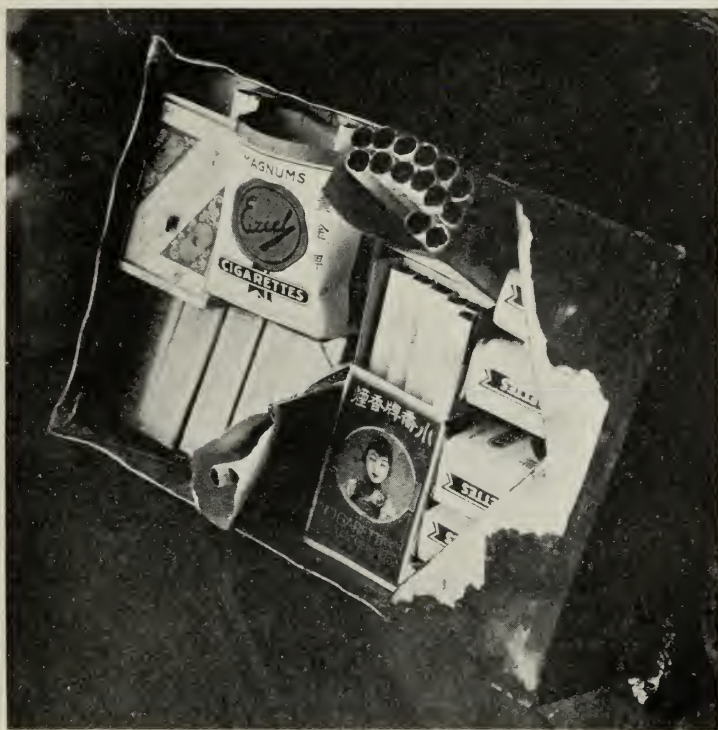
The freight rate from San Francisco to Hongkong on dried fruits is \$14 per ton of 40 cubic feet, or about 20 cents per box weighing 25 pounds. Charges for lighterage and coolie hire from the ship to the dealer's warehouse in Hongkong average about 3½ cents a box. In Hongkong dried fruits are stored in warehouses or in the shops of the dealers who order them from California. During the winter months most dried fruits, even those packed in wooden boxes, keep successfully, but during the summer it is only those in tin-lined cases or sealed tins which can be stored for any length of time.

When shipped from Hongkong to Canton, the freight is 10 cents per hundred pounds. Lighterage and delivery costs at Canton average 5 cents per hundred pounds. To these charges must be added the Chinese tariff on imported fruits, which is 12½ per cent of their value. Dealers in Canton generally order dried fruits from wholesalers in Hongkong, buying only in small amounts from time to time as supplies may be needed. In general, these supplies are brought in only during the winter months, owing to the danger of spoilage. To interior points beyond Canton, dried fruits are conveyed by the elaborate system of waterways of southern China.

The lining of cases with tin, at present only practised with raisins, would enable larger amounts of dried fruits to be sold throughout southern China. Although this process is relatively expensive when done in America, the cost of relining cases in China when done with native material and native labor is only about 1 cent a pound.

Trade Promotion Methods.—The question of price is predominant in all sales to Chinese of the middle and lower classes. Any commodity that is to sell extensively among the Chinese must successfully compete with other products offered to them at comparable values. The largest tobacco company operating in China finds its biggest sales are those of a brand which retails twenty cigarettes for 5 cents. On many cigarette stands in the cities, cigarettes retail at the rate of two cigarettes for one copper, the copper being worth about one-sixth of an American cent. Sales are normally made of these cigarettes from open packages, the buyer laying down a copper and picking up two cigarettes in exchange. A great American oil company selling its

commodity to dealers only in case lots, finds that retailers peddle the oil down the streets to householders who bring out tiny lamps to buy one filling for a couple of coppers. The American organizations successfully selling on an extensive scale to the Chinese are those which have been able to reduce the unit of sale so that the masses of the people could purchase the commodity in small quantities.



Sales of cigarettes are made from open packages, the buyer laying down a copper and picking up two cigarettes in exchange.

Above all, any trade promotion enterprise conducted must have as its basis a cheap commodity which maintains a low price through a volume of sales and an efficient distributing agency operating on a narrow profit. All methods of trade promotion, no matter how cleverly conducted, are less effective among the Chinese than is a low selling price. It would thus be desirable, at least at the outset, to sell California canned and dried fruits at the lowest possible cost.

With many of the commodities retailed in China, such as tobacco, oil, machinery, etc., the goods are sold at a lower price than in the United States. The Far Eastern market was developed for them in

order to dispose of a surplus in production which could not be offered to America without unduly depressing the price level. In canned and dried fruits, however, the goods are offered for sale at prices substantially higher than in the United States. Fruits are marketed at the American selling price, plus the freight, handling charges, commissions, and tariffs imposed upon them by their export to China. Thus, we attempt to sell to a people of low purchasing power at a price higher than we ask of the relatively rich American. If any extended development of dried and canned fruits is to be made in southern China, the price must be reduced so that it will compete with native products of similar usage. The profit, if any, must be derived through a large volume of sales which buoy up the American price level rather than through the commission on a few cases of canned goods or boxes of dried fruits.

In most of the successful trade-promotion enterprises conducted in China, the distribution of free samples has been an effective method of advertising. Coupled with this, the appeal to improved health is always powerful. Furthermore, the masses of Chinese still greatly respect education and those who possess greater learning than themselves. Trade promotion embodying these three principles is likely to be successful. Demonstrations conducted before girls' classes in the schools which would illustrate not only the value of California canned and dried fruits but also the methods of preparing them in the home, would be an efficient means of presenting them to the people. Although the interior of China is an impenetrable wall to many foreigners, Chinese in great numbers travel back and forth on the river systems of southern China, bringing from the cities to the interior the newest ideals in modern living popular among the people in the cities. Even advertisements from the newspapers showing modern methods of dress and modes of life are carried by these visitors back to their distant country homes. Although the reaction among the masses of the people is relatively slow, it is nevertheless certain. Demonstrations, display, and advertising in the big cities would thus have a wide spread of influence.

FRUIT MARKETS IN THE PHILIPPINE ISLANDS

TABLE 45

DIRECT FRUIT EXPORTS FROM CALIFORNIA TO THE PHILIPPINE ISLANDS

Kind of fruit	1927		1928		1929	
<i>Canned</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Berries.....	19,861	4,167	28,082	6,192	29,778	5,957
Apples.....	60,006	5,955	52,377	6,055	63,646	5,894
Apricots.....	56,445	6,851	31,228	4,075	23,936	2,673
Cherries.....	109,137	20,007	149,250	27,285	129,160	22,240
Prunes.....	39,561	4,492	34,171	4,393	36,063	4,427
Peaches.....	307,720	32,514	325,502	35,541	381,414	43,807
Pears.....	87,671	11,196	50,550	7,264	55,450	7,561
Fruit for salad.....					63,311	11,214
Other canned.....	251,861	22,733	148,365	16,187	199,427	19,165
Pineapples.....	49,143	7,096	54,712	7,776	43,066	5,902
Jams, jellies, etc.....	143,940	27,994	186,731	36,984	106,556	24,578
Total.....	1,125,345	143,005	1,060,968	151,752	1,131,807	153,418
<i>Dried</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Raisins.....	634,505	72,703	917,740	79,373	1,000,439	78,455
Apples.....	7,632	1,474	19,158	2,285	8,037	1,674
Apricots.....	4,511	812	4,871	1,129	6,017	1,424
Peaches.....	4,382	897	4,869	890	5,093	942
Prunes.....	185,099	19,067	202,915	20,311	122,292	12,580
Pears.....					2,900	324
Other dried.....	21,212	4,404	25,597	5,476	30,849	5,729
Total.....	857,341	99,357	1,175,150	109,464	1,175,627	101,128
<i>Fresh</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>
Grapefruit.....	1,274	6,126	1,461	7,433	1,727	8,641
Lemons.....	6,859	36,438	6,628	43,087	6,384	34,918
Oranges.....	44,740	219,824	40,811	239,878	45,372	245,678
Apples.....	22,877	40,557	22,925	37,733	21,248	45,267
<i>Fresh</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Berries.....	10	2			650	90
Grapes.....	1,150,917	92,599	1,458,150	130,944	1,629,809	137,346
Pears.....	14,983	1,468	19,750	1,978	37,268	3,873
Peaches.....	10,539	771	2,850	211	9,360	722
Other fresh.....	37,741	3,404	26,342	2,244	58,489	4,499

FRUIT MARKETS IN THE PHILIPPINE ISLANDS

Because the Philippine Islands are the only Far Eastern possession of the United States, they have become so well known that they hardly require description. Familiarity with the Philippines has caused them to assume a greatness in the American mind out of proportion to their relative importance in the vast areas of the Far East. Usually Americans know many persons who have lived in the Philippines, whereas the neighboring islands of Borneo and Formosa remain remote and unknown. However, despite American possession through a third of a century, the islands continue in their life and their trade demands to be typically Asiatic, except at those few centers where the American influence has permeated more deeply than elsewhere.

Because of free trade with the United States, American imported goods predominate in the islands. In 1927 the United States supplied over 61 per cent of the total imports, which were valued at over \$115,000,000. Relatively high wages have resulted from the free entry of Philippine goods into the United States and from the exclusion policy of America, which has prevented the hordes of other Asiatics from migrating to the islands. Through the operation of these two policies the per-capita trade of the United States with the Philippines has increased from 50 cents in 1903 to \$5.20 in 1927. Meanwhile, it is estimated that wages in the Philippines have increased more than 200 per cent since Spanish times and that wages are still increasing at about the rate of 10 per cent a year. However, the per-capita income is still low, being estimated at from \$34 to \$35 a year.*

The purchasing power of the people varies from season to season, according to the success of the agricultural crops, which are the largest resource of the Islands. The group is predominantly agricultural, although possessing large timber belts and mineral deposits.

The entire archipelago extends southward for a length of 1,500 miles, a distance about equal to that from Maine to Florida. However, the land area of about 115,000 square miles, is only equal to that of New England. The islands, scattered over a vast area of the tropic seas, constitute both a commercial and an administrative problem because of the difficulties of transportation and of communication. Among the 3,000 islands in the group, only a few are of real importance. Luzon and Mindanao are the two largest islands, the former

* U. S. Dept. of Commerce, "Sales Territories in Middle Asia and the Philippine Islands" (1929), p. 34.

with about 40,000 square miles and the latter with an area of 36,000 square miles.

In 1928, the entire population of the Philippine Islands was estimated at 12,354,000 persons, of whom only 5,800 were Americans. These Americans with an equal number of Europeans, most of whom are Spanish, make up the foreign population. Manila is the only large city in the group, and is the great distributing center for all the islands. Practically all imported products enter at Manila and from there are distributed over the archipelago. Manila's 400,000 persons constitute a large consuming center not only because of their numbers, but also because of their comparative sophistication, relatively high wages, and fondness for foreign articles. The second largest city is Cebu, with a population of 69,500. Iloilo has 49,000 and Zamboanga 30,800 people. All these are in the southern islands, distant by sea several days' travel from Manila.

There are about 50,000 Chinese in the Philippines, practically all of whom are merchants. They largely control the distribution of merchandise throughout all the islands. Until recently they have been responsible for perhaps 95 per cent of all distribution. More recently, Filipino merchants have developed an increasing knowledge of trade and commerce, and because of their progressiveness in the introduction of new articles, have displaced the Chinese from some of their former supremacy. However, in the main, the Chinese still continue to handle merchandise from the importer or manufacturer to the final consumer. Most sales to the consumer are made in very small individual purchases through small stores known as 'tiendas.' To these stores the Chinese distribute imported goods in small quantities by means of a system of their own which ramifies throughout the islands.

The purchasing power of the Filipino people, based on a daily wage of 40 cents and an average per-capita income of \$35, seems exceedingly small to those who know only the United States. Since, however, the necessities of food, clothing and shelter are obtained so cheaply and easily, this wage permits the purchase of a considerable number of luxuries, provided they are obtainable for a small individual purchase. The people generally are not bargainers, and are ready to purchase such commodities as take their fancy, provided they have the money in hand or can borrow it. In estimating the percentage of people who might be considered as potential consumers of small cans of fruit or small packages of dried fruit, responsible business firms long resident in the islands varied from 25 per cent of the people to as high as practically the entire population. The latter estimate, of course, merely assumed that all might be occasional purchasers if they desired

it. The largest number of estimates indicated that perhaps two-thirds of the people might be considered as within the class capable of purchasing a package of dried fruits that would sell for 5 cents or a small can of fruit for 10 cents on occasions when they desired to indulge in one of these luxuries.



Individual purchases in the Philippine Islands are made through small stores and shops. Most of these are controlled by Chinese.

It is generally held by Americans throughout the islands that the Philippine market represents one of the best trade opportunities in Asia because of free trade with the United States, which has been steadily building up the buying power of the people and because of

the luxury-loving habits of the population which lead them to indulge in the purchase of new commodities when these are properly presented to them.

Fruit in the Philippine Diet.—Rice is the basis of the diet of the people of the Philippine Islands. This is necessarily supplemented by other foods, the largest element of which is fish. Near the seacoast fresh fish is used, cooked separately from the rice but eaten with it. In the interior, where fresh fish is unobtainable, salted fish is more common. The fish is frequently cooked with various vegetables. Essentially, the diet of the poorer people is one of rice, varied by whatever other food materials are available.

As the social scale rises, and the income of the people becomes larger, their diet is varied with a considerable number of forms of fish, vegetables, and fruits. Whenever obtainable, sweets are eaten at the end of the meal and are greatly liked by the people. Fresh native fruits are more generally eaten for their sweetness than for their food value. In the neighborhood of sugar plantations, sugar cane may be consumed as a sort of dessert at the end of the meal. However, fruits are still regarded as a luxury in the rural sections of the islands and as something not always obtainable, despite their cheapness and profusion throughout the entire year.

Among the sophisticated people of Manila and its environs, the diet has, of course, changed materially during the American occupation. These constitute, however, so small a proportion of the Filipino people as to be almost negligible in any discussion of the trade development of the islands. It is recognized, however, that under continued American control and occupation, the development in food habits which has proceeded so rapidly in the large centers will proceed outward through the rural districts.

The extravagance of the people is notorious, so that the hoarding of money was originally unknown. The wants of the native people were few. The climate made it unnecessary for them to build houses that would do more than serve to protect from rain and sun. Their demands for clothing were limited to the requirements of decency. Thus, a large percentage of the national income has always been expended upon food. The development of a higher per-capita income is largely dependent upon the creation of new desires. Because of the humid, damp climate of these fertile islands, the people have been able to obtain the necessities of life with but little work. Life has been easy for many generations. As new desires are created, more work becomes necessary in order to purchase the commodities with which to satisfy them. Thus, increased purchases come more largely through

increased desires rather than through increased incomes. Increased incomes are a secondary result brought about by a desire for comforts, conveniences, and novelties not previously enjoyed.

The introduction of American fruits, fresh, dried, and canned, has gone forward slowly throughout the Islands. To the American people some of the uses of these fruits would seem peculiar. Garlic, raisins, and pickles are sometimes cooked together, while a large use for imported mince-meat has been that of stuffing for baked chicken.

The regard for American fruits has been primarily because of their sweetness rather than because of their need in the diet. However,



In the Philippine Islands fresh native fruits come into the market at low prices.

the native diet has a deficiency in certain vitamins and a surplus of carbohydrates. Fruit is therefore a desirable addition to the food habits of the people. Owing to the efforts of health authorities and of school teachers, the younger generation consumes larger amounts of fruit. In the neighborhood of school houses there are many roadside shops which sell fresh or dried fruits as a confection to school children.

Fresh Fruits.—Although the Philippine Islands consume almost one-half of the fresh fruit exported from California to Asia, the further development of the fresh fruit market is limited by (1) the uncertainty of successful refrigeration during the long voyage, (2) the competition of native fruits which ripen throughout the entire year, (3) the difficulties of distribution throughout the scattered

islands, and (4) the low purchasing power of the people. Despite these handicaps, the Philippine Islands with their relatively small population consume almost twice as much American fresh fruit as does China. Freedom from import duties has been responsible in part for the expansion of our fresh-fruit markets in the Philippines, but more largely, the growth of the trade has been due to American initiative, to the example in food habits set by American citizens, and to teaching in the schools.

Native fresh fruits come into the market throughout the year at low prices. Table 46 states the approximate seasons that native fruits are available and the retail prices at Manila of those in market at the time this investigation was made.

TABLE 46

NATIVE FRESH FRUITS

Seasons and Retail Prices, November 1929, Manila, Philippine Islands

	Seasons	Retail prices
Bananas.....	All year.....	25c-40c per 100
Cocoanuts.....	All year.....	2½c-3c each
Limes.....	All year.....	20c-25c per 100
Papayas.....	All year.....	8c-12c each
Chicos.....	January-March.....	1c-3c each
Melons.....	January-March.....	———
Pilis.....	March-June.....	———
Pineapples.....	March-June.....	25c each
Mangoes.....	April-June.....	2½c-10c each
Lantoes.....	May-June.....	½c-1c each
Guavas.....	May-September.....	1c per 10
Mangosteens.....	June-September.....	———
Mandarins.....	June-September.....	———
Calamondins.....	June-September.....	———
Carambolas.....	June-September.....	———
Avocados.....	July-September.....	———
Mabolos.....	July-September.....	½c-1½c each
Lanzones.....	July-September.....	15c-40c per 100
Oranges.....	Oct.-Feb.....	½c-5c each
Pomeloos.....	Oct.-Feb.....	.5c each

Among California fruits, oranges have the largest sale. They are in demand throughout the year, owing to the warm climate and to the fact that the native oranges do not in any sense directly compete with the California product. In 1929 over 45,000 boxes of oranges from California were imported into the Philippines, and although the market for these has not increased during recent years, the demand continues steady. Oranges packed 126 to the box wholesale at from \$6.50 to \$11.75 a box and retail in the markets of Manila for 9

or 10 cents each. Packed 200 to the box, wholesale prices range from \$5.50 to \$7.50 and retail prices from 6 to 7 cents each. The general tendency of the market seems to demand a rather large orange, since oranges are a luxury fruit consumed by the people of larger incomes and by the resident Americans. Owing to the fact that oranges as well as apples can be shipped considerable distances without refrigeration, these fruits are found on stands throughout the central portion of the island of Luzon, where a widespread motor-truck transportation makes it possible to take these products from the central city to various rural districts. Smaller quantities are also trans-shipped to the southern islands, and are there found in the large centers of population.



Bananas are abundant and cheap throughout the year in the Philippines. Here they are unloaded on the shores of the Pasig River.

California grapes have steadily increased in demand until the season of 1929, when an abundant crop of lanzones, one of the native fruits, was coincident with the arrival of large quantities of California grapes. People of the Islands, liking their native fruits which were abundant and cheap, consumed lesser amounts of grapes, so that late in the season there were large hold-overs in the warehouses of the city of Manila. The grape market in the Philippines in 1929 consumed over a million and a half pounds of grapes, but this market is not capable of wide expansion because of the scattered nature of the islands and the difficulties of transportation to distant points. The consuming market is in and around the city of Manila. The amount of fresh grapes trans-shipped to the southern islands is almost negligible. In the fall of 1929, crates of grapes weighing 32 pounds wholesaled at from \$2.50 to \$4.50 a crate. In kegs of 32 pounds, the

wholesale price ranged from \$3 to \$5 a keg. At retail, California grapes were selling at from 13½ to 17½ cents a pound, dependent upon the quality and variety. Many importers asserted that they had taken very large losses because of the oversupply in the market, and that they even sold out at fifty cents on the dollar.

Apples rank third in the shipments from California to the Philippines, but of the total imports of fresh fruits from the entire United States, apples have first place. The greatest volume of these is shipped from Oregon and Washington, California apples having a relatively small place in this market, being in demand only in the early season. It was stated that the present predominance of Washington and Oregon apples has been based upon the careful inspection carried on in



Since the American occupation, extensive municipal markets have been built in all the large cities of the Philippine Islands.

those states. Dealers in Manila asserted that the quality of apples from California was uncertain, and not necessarily in accordance with the inspection marks which they bore. Small apples labeled "orchard run," about 280 to the box, wholesale at from \$2.40 to \$3 a box. Those containing about 100 to the box wholesale at from \$3 to \$5 a box. At retail, apples sell from 2 to 6 cents each, according to the size, quality, and season.

Lemons rank fourth in importance among the fresh fruit imports from California to the Islands. There is a steady demand for lemons throughout the year in this warm climate. Packed 300 to the box, they sell at wholesale at from \$5 to \$14 a box, and retail at from 4 to 6 cents each.

The importation of pears, peaches, apricots, and plums is relatively small, and is a hazardous enterprise owing to the difficulties of transportation under present refrigeration methods. When these fruits succeed in reaching the Manila markets in good condition, the

prices are relatively high since importers must be compensated for previous bad shipments. The demand is confined largely to the foreign population and to the luxury classes. Peaches, 18 pounds to the crate, wholesale at from \$1.75 to \$4 a crate. Pears, 44 pounds to the box, wholesale at from \$3.25 to \$5.50 a crate. Plums, 18 to 20 pounds to the crate, wholesale at from \$2.50 to \$4.50 a crate. Peaches, pears, and plums all retail usually at about 27 to 28 cents a pound. The losses in shipping the softer fruits to the Philippines are so great that they limit the market even below the popular demand. Material increase in the consumption of peaches, pears, plums, and apricots can be made if refrigeration methods are perfected so as to enable these fruits to arrive in Manila in good condition with reasonable surety.

Aside from oranges and apples, imported fresh fruits are for sale only in Manila and its immediate vicinity. There are five large cold storage houses in the city, two of which are privately owned and in which space is not available for public use. In the other three plants, cold storage space totals about 159,000 cubic feet. Charges in these plants, fixed by the Public Utilities Commission, is $\frac{1}{3}$ cent per day per cubic foot, or, for the average case of fruit, about $\frac{1}{2}$ cent per package per day. From Manila to the outports in the Philippines there is no refrigeration space on inter-island boats.

Freight charges from California points to Manila average about as follows: apples, \$1.10 per box; grapes in 32 pound kegs, \$1.55 a keg, in 32 pound lugs, \$1.09; oranges, \$1.50 a box; lemons, \$1.70 a box, and 90 cents a half box; peaches, 67 cents a crate; plums, 64 cents a crate; and pears, \$1.33 a crate. Interest charges average about one-fourth of one per cent during trans-shipment. In addition thereto, there is a $1\frac{1}{2}$ per cent sales tax in the Philippine Islands imposed each time the goods are sold.

The largest demand for fresh fruit occurs during the fiesta season, beginning with November first and terminating about the first of January. During that season, after the harvest of the year, the people are in a festival mood, have more ready money, and purchase more luxuries than during other months.

The comparatively large demand for fresh fruits in the Philippines, which is chiefly concentrated in a portion of the island of Luzon near Manila, is indicative of the possibility of the development of a fresh fruit market in Asia wherever relatively high wages and good transportation obtain. Unfortunately, the continent of Asia is typically a region of low wages and poor transportation, so that such areas

do not frequently occur. In the Philippine Islands only a very small percentage of the native population is reached by the present fresh-fruit market. It is improbable that more than 10 per cent of the fresh fruit received in the Islands is shipped outside of the vicinity of Manila.

Further increase in the market for fresh fruits must await means of better transportation as well as improved refrigeration methods. Meanwhile the development of good roads, better inter-island service,



The market for American fresh fruits is influenced by the volume of native fruits on sale. When native crops are large the sale of imported fruit decreases.

and motor-truck transportation will slowly but steadily increase the numbers of those persons to whom fresh fruits from America are available.

Canned Fruits.—Canned fruits have a much wider distribution in the Philippines than do fresh fruits, because they are capable of almost indefinite storage and transportation. Probably 35 to 45 per cent of the imported canned fruits are consumed outside of Manila and its vicinity.

There is very little native fruit canned in the Islands, the output being confined to three small canneries in and near Manila. These pack mangoes and pineapples, with a few other native fruits, but their entire production is of no consequence when viewed as competition with importations from America. Considerable amounts of canned pineapple come into the Islands from Singapore, its cheaper price making it attractive to the native population despite its poor quality. From China also come canned lichees, which sell at 20 cents a can at

retail. Sliced and cubed pineapple retail at about 22½ cents a can. Native canned mangoes retail at 35 cents.

Among American canned fruits, peaches are by far the most popular. Cherries are second in popularity, despite their high price. However, the volume of cherries sold is only about half that of peaches. Canned grapes are the only other popular canned fruit. These sell largely to the Chinese. Pears, apricots, and plums are not appreciated by the native population as they lack sufficient sweetness to satisfy their taste. Probably 90 per cent of the peaches, pineapple, cherries, and grapes imported are consumed by the native population, and only about 10 per cent by the foreign residents. On the other hand, practically all of the apricots, pears, and plums imported are consumed by foreigners.

TABLE 47
CURRENT RETAIL PRICES, MANILA, NOVEMBER 1929,
AMERICAN CANNED FRUITS

	Prices per can	
	No. 2½ Can	No. 1 Can
Apples	\$0.30	\$0.20
Apricots .....	.30	.20
Cherries .....	.35	.27½
Figs .....	.42½	.22½
Grapes .....	.30	.17½
Peaches .....	.27½	.17½
Pears .....	.37½	.20
Plums .....	.32½	....
Fruit Salad .....	.42½	.22½

Prices in other cities of the Philippines are dependent upon the distance the commodities travel from Manila and upon the number of hands through which the goods are passed before reaching the final consumer. The 1½ per cent sales tax, levied by the Philippine government, is imposed each time the commodity changes ownership. Some canned fruits are sold as many as four times before reaching the last retailer. Presumably each seller increases the price at least enough to pay the government tax and also to insure himself a moderate profit. Generally speaking, costs increase from 5 to 15 per cent in various sections of the Islands over prices in Manila. In remote sections, where fruits must be unloaded from trading schooners on the beaches and from there hauled on mule-back to distant centers, the rise in price is necessarily large. Some canned fruits are shipped direct from California to merchants at Cebu and Iloilo. In such instances they usually sell at about Manila prices.

Canned fruits are largely ordered on the indent system through representatives of California packers established in Manila. However, the largest distributing house in the Philippines orders direct as its own representative of certain California packers. Distribution throughout the Islands is carried on by Chinese wholesale merchants in Manila. They sell to local retailers on Luzon and on other islands, who frequently have financial connection with the wholesaler. In general, the entire system is conducted by the Chinese in a manner somewhat similar to that in China.

Freight to Manila on canned fruits is \$14 per ton of 40 cubic feet. This is equivalent to 27 cases of No. 2½ or No. 1 tall cans, or about 30 cases of 8-ounce cans. Insurance rates rule at 35 cents per hundred dollars' valuation. Delivery charges from ship to warehouse at Manila by means of lighters and trucks average about 62½ cents a ton. Wharfage dues are 57 cents a ton. There must furthermore be added the 1½ per cent sales tax of the Insular government, 1 per cent interest charges on the draft, 1⅛ per cent exchange costs, and one-fourth of 1 per cent bank commission. All these accrued charges between the point of shipment from California to delivery in Manila necessarily increase the cost by an appreciable sum. Presumably also, those occupied in the business derive a margin of profit from the transaction, which must be added to the charges as a legitimate increase in the cost of delivery from California to the Philippines.

The market for California canned fruits has not yet reached saturation. The sale of canned fruits has continued to show a slow but gradual increase throughout the passing years. It may be expected to continue to grow during the future, even under the present methods of packing and distribution.

The small cans of fruit have not been introduced into the Islands to any measurable degree. A few of them can be found on sale in some of the Manila stores, but these stores are largely in the hands of Chinese who are notoriously inactive in creating a new demand although exceedingly effective in supplying a demand after it has been otherwise created. The purchasing power of the people of the Philippines, while higher than that of some other Asiatic countries, is low in comparison with that of the people in America. While the Filipinos are open-handed and at times extravagant, the amount of funds on hand at any one time is necessarily small. The large can introduced in early years is difficult to sell to the general native population, except on rare occasions. Here again in the Philippines, a relatively high-priced commodity is offered for sale in a large package to a poor population.

The Filipino eats canned fruits for their sweetness rather than for their fruit flavor. He appreciates them as a dessert in proportion to the amount of sugar contained in them. Many of the California canned fruits offered to the native are not sufficiently sweet to appeal to their tastes. The canned fruits that are popular among the natives of the Philippines are those which have a high sugar content.

Dried Fruits.—Of the dried fruits imported from California into the Philippine Islands, about 85 per cent are raisins and 10 per cent prunes. These two commodities thus make up 95 per cent of the California dried fruits used in the Philippines.

Native dried fruits are not produced in the Islands, but in 1928, 37,133 pounds of raisins were imported from Spain, and 495 pounds from Palestine. Dried fruits from China to the amount of 335,504 pounds were also brought into the country. These were chiefly lichees and Chinese dates.* Lichees retail at 28 cents a pound and dates at 20 cents a pound.

Because of the damp, humid climate, dried fruits spoil rapidly when open to the air, becoming infested with molds and insects. Much dried fruit is therefore sold from cans, although some is packed in tin-lined cases. However, the sale of raisins in bulk in wooden boxes still continues. The turn-over of these is sufficiently rapid to usually enable them to be sold before spoilage. Dried fruits in Manila are frequently stored in refrigerator rooms at a temperature of from 40° to 45° Fahr., where they keep almost indefinitely. Raisins are usually warehoused without refrigeration for the first year, but if they are to be held a longer time are then placed in the cold rooms along with other dried fruits. Cold storage costs 23 cents per case per month, or a little less than 1 cent a day for a 25-pound box.

The sale of raisins in the Philippine Islands trebled in the three years between 1925 and 1928, owing to the promotion work which has been carried forward for raisins as a food. The first extensive introduction of raisins was for their use as a confection. They were thus sent out in 25-pound wooden boxes in which were enclosed 400 one-ounce envelopes. These were filled by the local dealer who retailed them at about 1 cent each. The demand for any confection is fickle, and it was recognized by those promoting this product that a stable demand could be created only on the basis of food used in the home. Therefore, an educational program was undertaken to induce the people to use raisins as a food. Contests were held for the best recipe for the use of raisins, these contests being held in various languages

* Annual Report of the Insular Collector of Customs (1928).

and dialects. The best recipes were then printed in booklets which were distributed in connection with the sale of raisins. Efforts were also made to get bakers to use the product in raisin bread and other bakery goods. But by a peculiar local psychology, the bakers could not be induced to use a sufficient amount of raisins to make either a noticeable improvement in the bread and the demand for it, or an appreciable increase in the consumption of raisins. However, raisins have become more firmly established as a food of the people so that the demand in the future is likely to be more constant than in the past. Indeed, the demand may be expected to materially increase. Raisins retail at from 10 to 12½ cents for a 15-ounce package in Manila. They also sell in packages weighing 1¾ ounces, which are retailed at about 3½ cents.

Prunes in the two years of 1927 and 1928 increased materially in consumption, but as yet their use is chiefly as a confection to be eaten dry out of hand. They are sold chiefly in bulk from a 5-pound can, smaller sales being made from cans weighing 2½ and 1 pound. In many of the smaller stores of the Philippine Islands, prunes are sold one at a time on the end of a toothpick. This demand is recognized as unstable by those promoting their sale, and as likely to decrease whenever some other product catches the popular attention. Efforts therefore are now being made to introduce prunes as a food stuff in the home, so that the demand will be more permanent than in its present form. In Manila, prunes sell at about 16 cents a pound. In other cities of the Islands, prices are somewhat higher, usually about 19 cents a pound.

The native consumption of prunes and raisins is responsible for the quantities that are sold in the Islands. Probably 90 per cent of the raisins and prunes are sold to natives. Of apricots, pears, and peaches, however, probably at least 90 per cent is consumed by foreigners and only 10 per cent by natives. The total consumption of these is therefore very small, and the present market immaterial. In Manila, apricots sell at 37 cents a pound, peaches 32 cents a pound, pears 32 cents a pound, and white figs 28 cents a pound. Prices vary throughout other cities of the Islands, but, in general, away from Manila apricots bring at retail about 40 cents a pound, peaches 35 cents a pound, pears 35 cents a pound, and white figs 31 cents a pound. There is usually an increase of about 2½ to 5 cents a pound in other cities of the Islands above the prices in Manila.

Of the dried fruits, prunes and raisins are the only ones that are sold in considerable amounts outside of the general vicinity of Manila.

It is estimated that about 50 per cent of the prunes and raisins are sold in other sections of the archipelago. Since so large a proportion of apricots, peaches, and pears are consumed by foreigners, most of whom are congregated in the capital, the shipment of these to other ports in the Islands is exceedingly small.

Shipments of dried fruits from California to the Philippines pay freight at the rate of \$14 per ton of 40 cubic feet; insurance is about 40 cents per hundred dollars' valuation. As in the case of other commodities, there is a local sales tax of $1\frac{1}{2}$ per cent each time the goods are sold. Interest charges on drafts average about 1 per cent, exchange costs $1\frac{1}{8}$ per cent, and there is a one-fourth of 1 per cent bank commission. Delivery costs from ship to warehouse at Manila by means of lighters and trucks average $62\frac{1}{2}$ cents a ton. Wharfage charges are 57 cents a ton. Thus there are a considerable number of charges that must be added to the American cost of the goods to permit their sale in the Philippines.

Dried fruits are usually ordered by the indent system, through a local representative in Manila of California exporting firms. One large organization carries stocks on hand, but this is an exception to the usual method. In the outlying ports in the Islands, dried fruits are ordered through Chinese wholesalers in Manila, who in turn place their orders with Manila representatives of California exporters. Buyers are usually allowed thirty to sixty days' credit. Some dried fruits are shipped direct from California to local ports such as Iloilo and Cebu, but the great majority of all material is landed at Manila and is there trans-shipped to the other ports in the Islands.

The present consumption of dried fruit should be understood to involve raisins chiefly, with the consumption of prunes following far behind, but nevertheless increasing. Other dried fruits are entirely inconsiderable because confined to the small group of foreigners whose entire purchases aggregate less than 5 per cent of the total sales.

Trade Promotion Methods.—A large percentage of the population of the Philippines is still illiterate. Furthermore, they cannot be reached by the English language. There are three major languages and eight dialects in the Philippines, as well as a number of variations thereof spoken by small groups. Trade promotion by means of advertising in newspapers and periodicals would not reach more than 5 per cent of the people of the Islands, even though it were distributed in various languages and dialects.

Free sampling has not been extensively practiced in the Philippines. It is recognized, however, that when this is done, samples should be

left in the homes rather than given through the stores, and that a printed advertisement should be left with every sample. Advertising on billboards is more effective than might be expected, since a new billboard can often be found with a group of persons gathered about to listen to one man, able to read, who is conveying to the group the information conveyed by the picture and lettering on the board. One firm has found that advertising on paper bags distributed to retailers is a more effective method of advertising than the newspapers and periodicals.

In the Philippines all trade promotion for California fruits rests (1) upon the creation of a desire for a commodity which has not been previously used, (2) upon the goods being extensively distributed so that the desire having been created it can be satisfied through a local purchase made in the immediate neighborhood, (3) upon the possibility of the commodity being sold in small units, if it is to be consumed by a people of small purchasing power who have little reserve funds, and (4) upon stocks being carried on hand at central points where a demand arising in any place in the Islands can be supplied.

The Chinese who control the present distributing system in the Islands are not accustomed to creating a demand. They look upon new commodities with suspicion, being fearful that they will be unable to sell them from their shelves. The demand having once been created, however, the Chinese are quick to avail themselves of the new commodity and to place it on sale. The introduction of new articles such as American fruits, must be carried forward by some other agency than the local dealer. The Chinese almost always take the viewpoint that nothing can be sold other than goods that are already in demand. It thus becomes desirable in any large promotion plan to actually place salesmen in the stores to display the goods and to push them before the people. Demonstrations of methods of cooking and utilizing the product are not an effective method, where given in the shops, because the higher classes of native people do not themselves make purchases but usually send servants to do so. One large organization in the Philippines has employed domestic science teachers to make house-to-house canvasses, telling and showing the people how to use American canned and dried fruits.

The Filipino people are naturally extravagant and like the best quality of goods. Because of their lack of knowledge of new materials, they usually cling to one brand and are slow to change to new brands of an old product. Manufacturers therefore would do well to establish one brand and one grade only for sale in the Philippines.

Canned fruits have not yet been introduced in the 1-pound and 8-ounce sizes. There is every reason to believe, however, that small sizes could be successfully popularized provided trade promotion were conducted over a considerable period of time. Beans, soups, meats, and chili con carne are already packed in individual tins which are offered for sale throughout the Islands. Canned California fruits, however, have been offered only in the large size. The sale of an 8-ounce can which would sell for 10 to 12 cents might be extensively developed. One large agency was so optimistic as to estimate that after two years of extensive trade promotion it would be possible to sell in the Philippines, 100,000 cases of 8-ounce cans of peaches per year. These, however, should be quartered rather than sliced since, except in the neighborhood of Cebu, the demand for sliced peaches is small. Canned grapes in the small 8-ounce can would also be popular. The demand for canned grapes is already considerable, and the small size of the fruit makes it especially practical in the small tin. The oval can of California sardines which retails at 20 centavos, or less, of local money, or 10 cents in American currency, has increased in four years through one firm alone from a sale of 90 cases to 175,000 cases. It is quite within the range of possibility for similar even though less extensive success to be made for the small can of California fruits, provided it were properly promoted with funds available for the purpose.

The sale of dried fruits will probably be limited in the future, as in the past, to raisins, prunes, and white figs. The sweetness of all these fruits is an important element in their sale. Their further development is dependent upon their introduction to the home as an element in family cooking. Efforts to develop these uses might be expected to increase present sales. The market for prunes is especially promising, provided they could be sold cheaply enough to make them available to the masses of the people at a relatively low price. The present necessity of packing these dried fruits in tin, except where rapid sales can be made, obviously increases the price. Such a necessity might not obtain, however, after the fruits gained greater popularity. While introducing a new cigarette, a large tobacco company, in order to prevent spoilage, sold cigarettes in cans of fifty as one of the introductory phases of its work. Although the expense of this tin increased the cost, the cigarettes were sold at the same price as those in the paper package. After sales increased so that the turn-over was more rapid and the danger of spoilage thereby lessened, the company was able to displace their cigarettes in tins with others in the usual paper package

common in America, but wrapped in an outside waxed paper. The extra cost of the tin involved in the early sales was considered a part of the trade-promotion expense necessary to the introduction of the commodity. A similar method might be followed in dried fruits.

The purchasing power of the Filipino people is gradually increasing. Even the so-called 'non-Christian' tribes resident in the far interior are becoming familiar with imported goods and feeling a desire for them. It is not infrequent for these hill tribes to come down from the mountains, take a contract under their chief for the clearing of land, and after its completion spend the entire amount for the purchase of goods at the plantation store, returning to their mountains laden with the produce they have earned. Money, as exchange, is of no use to them in the hills, so that the turn-over from cash to commodity is immediate.

Under continued stable conditions and continued free trade with America, the Philippine Islands present a favorable opportunity for the promotion and sale of canned and dried California fruits of the sweeter types, in the small package. The population is small as compared with the vast numbers in China and India, but owing to the higher purchasing power of the people, the market for American fruits is greater than the relative numbers of the people would indicate. Under their rising scale of living they may be expected to consume increasing amounts of California dried and canned fruit. This increase may be accelerated by proper trade promotion throughout the Islands.

FRUIT MARKETS IN FRENCH INDO-CHINA

TABLE 48

DIRECT FRUIT EXPORTS FROM CALIFORNIA TO FRENCH INDO-CHINA

Kind of fruit	1927		1928		1929	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
<i>Canned</i>						
Berries.....	252	39	864	153	4,962	900
Apples.....	3,627	333	2,688	352	1,362	180
Apricots.....	31,368	3,871	31,525	4,187	31,725	4,027
Cherries.....	31,764	4,593	17,136	2,346	19,775	2,822
Prunes.....	4,278	522	3,780	480	11,336	1,523
Peaches.....	36,201	3,708	35,538	3,782	44,795	5,696
Pears.....	26,215	3,413	26,500	3,807	38,398	5,717
Fruit for salad.....					18,615	3,393
Other canned.....	92,530	7,539	67,627	5,664	67,829	6,094
Pineapples.....			548	85	888	126
Jams, jellies, etc.....	11,305	2,233	41,528	5,702	8,634	2,006
Total.....	237,540	26,251	227,734	26,558	248,319	32,484
<i>Dried</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Raisins.....	146,012	11,606	249,232	23,313	330,211	18,756
Apples.....	900	109	694	124	3,020	473
Apricots.....	1,200	220	2,094	383	4,329	770
Peaches.....	100	16	160	38	895	104
Prunes.....	2,390	243	11,401	1,195	10,745	1,300
Pears.....					825	123
Other dried.....	501	65	1,595	389	2,149	446
Total.....	151,103	12,259	265,176	25,442	352,174	21,972
<i>Fresh</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>
Grapefruit.....			15	74	13	76
Lemons.....	17	88	20	109	52	338
Oranges.....	104	513	52	312	196	1,192
Apples.....	6	8	7	17	340	854
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Grapes.....	480	33			40,040	4,557
Pears.....					2,038	194
Peaches.....					85	7
Other fresh.....					1,080	58

FRUIT MARKETS IN FRENCH INDO-CHINA

The Far Eastern possession of the Republic of France known as Indo-China, comprises the eastern portion of the Indo-Chinese peninsula. It touches China on the north and Siam and Burma on the west. Around it on the east and south are the China Sea and the Gulf of Siam. French Indo-China consists of Cochin-China, a French colony, of which Saigon is the capital; of Cambodia, a colony which has its own king and of which Pnom-Penh is the capital; of Annam, a protectorate along the east coast; of Tonkin, a protectorate in the far north, of which Hanoi is the capital; and of Laos, a colony in the northwest. The exact area of Indo-China is not known but it approximates 273,500 square miles. The estimated population is over 20,000,000 persons. Included in these are about 500,000 Chinese. There are only 21,500 Europeans, almost all of whom are French. Including the consulate, there are only eight Americans resident in the large city of Saigon. Practically all of the large importers are French firms whose offices are in Saigon and Hanoi. The native population is predominantly agricultural, most of whom are occupied in the growing of rice. Retail trade is largely conducted by Chinese and Hindus who thereby control local finance, banking, and landed enterprises.

The principal city of the group is Saigon. It has a population of 330,000 persons. Pnom-Penh, the capital of Cambodia, has about 100,000, as does Hanoi, the capital of Tonkin. Since Hanoi is located some miles from the sea, goods are shipped through Haiphong, a city of 75,000 people on the coast, with which it is connected by rail.

Although there are only about a thousand miles of railway in French Indo-China, it has about 10,000 miles of roads, most of which are suitable for automobile travel. Therefore, between the large cities of the territory and many nearby country towns and villages motor buses and trucks ply on regular schedule through most of the year. During the rainy season this travel is frequently interrupted; but in general, owing to the French system of road building and its rapid expansion under recent administrations, French Indo-China has one of the most highly developed motor truck services of any country in Asia. This makes possible the distribution of imported products throughout the thickly settled portions of Cochin-China, Cambodia, and Annam.

The most densely populated districts are, first, in the delta of Fleuve Rouge near Hanoi and Haiphong, second, along the coast of Annam, and third, along the banks of the Mekong River from its many mouths where they open into the sea up the river as far as Pnom-Penh. It is in these densely populated regions that the wealth of the country is produced. In these areas the population varies from 200 to 600 persons per square mile or perhaps an average of over six persons per acre.

The total foreign trade of French Indo-China was in 1926 about \$217,000,000. Of this amount, \$125,000,000 were exports, two-thirds of which was rice, while the imports were about \$93,000,000, of which only about \$2,000,000 was from the United States. The per-capita imports were thus about \$4.70 per person per year, of which the American share presumably was about 10 cents. The total imports of fruits and nuts were valued at \$280,000 a year.

The policy of the French government has been to develop trade between France and its colonies even though the great distances involved necessitate high freight rates between the two. Foreign trade and commerce between the colony and other nations have not been encouraged except in certain primary commodities which are not produced in French territory and which are necessary to the development of the colony.

In purchasing power, Cochin-China ranks first among the provinces, Cambodia second, and Tonkin third. Other divisions of the colony would come still lower in the scale. The colony as a whole has recently been depressed by the low exchange value of silver. Between 1923 and 1927, the fall in value of the French franc and the relatively high value of silver created a speculative wave throughout Indo-China. This in turn led to a subsequent depression in business, and the cessation of new activities. The stabilization of the value of the franc, followed by the fall in value of the local currency based on silver, has made it more difficult to import goods into Indo-China. These conditions, coupled with bad harvests, have depressed the entire financial outlook of the country.

The climate of Indo-China is decidedly tropical, the year being divided into a wet season from May to October and a dry season from November to April. During the rainy season the great central and southern plain of the country is frequently flooded by rising rivers so that local travel, except by boat, is interrupted. It is during this wet season with its very high humidity that difficulty is experienced in preserving any perishable foods that are exposed to the air.

Fruit in the Indo-Chinese Diet.—The diet of the native population of Indo-China consists primarily of rice, which is supplemented with meat, chiefly pork, and with vegetables. Generally the meat and vegetables are not cooked, but are finely minced and eaten raw. Over the rice and other foods is poured a hot sauce, known as 'meoc-man,' the manufacture of which is a considerable industry. To Americans, this sauce would seem most unusual. Raw fish, sprinkled with salt, is exposed to the sun. In the hot climate of Indo-China, the fish rapidly putrefies so that in a few days an oil exudes from it. The oil is then removed to a cool place where it ferments, producing the hot sauce used on the native food. It necessarily has a strong odor.

Practically the entire native population chews betel nut. The smoking of opium is general. Because of the use of highly seasoned foods and strong stimulants, the natives are unappreciative of delicately flavored foodstuffs. In a meal in which their universal hot sauce is used, there is no place for sweets or other desserts. Therefore, native fruits, produced locally throughout the entire year, are eaten between meals rather than as a part of the regular native diet.

The number of well-to-do natives is very small. These have a more varied diet than do the masses of the population. Wealthy natives may conclude the meal with sweet cakes or with fruit. Essentially, however, their primary diet is similar to that of the lower classes. Only a very small number of natives who have means to satisfy their desires show liking for foreign foods. The standard of living of the wealthy natives is relatively low as viewed from American conceptions. Wealthy natives of China and of the Philippine Islands are likely to imitate Anglo-Saxon standards of living. In French Indo-China those similarly inclined copy continental standards, which have a more economical basis. Colonial French generally live on lower standards than do Americans or British similarly placed. The scale of living among even the highest classes of natives of French Indo-China is below that of similar classes in countries under the financial or political control of the Anglo-Saxon race.

The Chinese population has a somewhat higher financial status than the native. The diet of the Chinese is essentially the same as in their home country. Large importations of dried and canned fruits come from China into Indo-China for the use of the merchant classes of Chinese scattered over the peninsula.

The French population of the possession live as nearly as possible as they would in France. Fresh vegetables and European fruits are difficult to obtain and are eagerly sought by the French. The number

of Europeans is, however, so small, being only about one-thousandth part of the entire population, that their demands are inconsiderable when viewed from the standpoint of any large trade enterprise.

The purchasing power of the native population is so low that it is probably below that of southern China. The people are lacking in enterprise and, generally speaking, are a backward race. The territory now included in French Indo-China was long a vassal of the weak empire of China. Because of the low purchasing power of the people, foreign foodstuffs of all kinds are practically unavailable to them. The highly seasoned native foods and the extensive use of stimulants makes the people unappreciative of foreign foodstuffs of all kinds.

Fresh Fruits.—Native fruits are abundant in the markets of Indo-China throughout the entire year. In addition to the fruits mentioned in table 49, mangoes and mangosteens are available for two or three months each year.

TABL7 49
NATIVE FRESH FRUITS, FRENCH INDO-CHINA

	Seasons	Retail Prices
Bananas	All year	2c-5c per pound
Cocoanuts	All year	2½c each
Oranges	All year	4½c-7c per pound
Sugar Cane	All year	¾c per two feet
Pineapples	All year	2c-3c each
Pears	Aug.-Nov.	9c-11c per pound
Persimmons	Aug.-Nov.	8c per pound
Pomeloos	Aug.-Nov.	10c each

Imported fresh fruits originally came from France by refrigeration on steamers running direct from that country to Indo-China. Fresh fruit from America was received by trans-shipment from Hong-kong or Singapore. With the recent development of direct refrigeration from California to Saigon at about one-half the rate charged from France, the importation of fresh fruits from France has practically ceased. The amount imported from France was always small since the cost was great and the long voyage through the tropics frequently resulted in the fruit reaching Indo-China in bad condition. The shorter voyage of 38 days from America with its lower rate, makes the possibilities of the fresh-fruit market greater for American products than for French. Since, however, refrigeration boats touch only at Saigon, and since there are no cold storage facilities from that port to other places in the colony, the importation of American fruits with the exception of apples, oranges, and lemons must necessarily be confined to that portion of the population in and around the city of

Saigon who are capable of purchasing them and anxious to obtain them. Furthermore, refrigeration facilities in the city of Saigon are almost non-existent, being confined at present to one firm which has 10,538 cubic feet of cold storage which it uses for its own purchases.

Until 1929 the largest demand among fresh fruits was for oranges running 176 to 200 to the box, which cost delivered at Saigon about \$8.00. These oranges retail in local markets at from 4½ to 6 cents each. The demand for lemons is small, since the native lime furnishes an acceptable substitute which is extensively used by the foreign population. With direct refrigeration service the demand for grapes has increased. In 1929, 40,000 pounds were shipped from California. Malaga grapes delivered at Saigon cost about \$4.00 for the 32-pound keg, and about \$2.35 a box. Emperor grapes cost about \$5.00 a keg and \$3.35 a box. At retail, grapes sold in Saigon at 20 cents a pound. In poor condition they sold down to 10 cents a pound. American apples, largely from Washington and Oregon, wholesale at about \$4.00 a box. They retail at 20 to 25 cents a pound. During the past season, pears from California received in the Saigon market retailed at about 4 cents each.

Refrigerated freight rates from California ports to Saigon are, for apples, peaches, and pears \$38 a ton, grapes \$28 a ton, oranges \$1.70 a box, lemons \$1.90 a box, grapefruit \$1.75 a box. Ships from the United States usually discharge their cargo 10 miles down the river below Saigon. The lighterage from that point to the customs warehouse averages \$1.20 a ton. Portorage from the customs warehouses to the local stores averages about 4 cents a package. Interest charges average 8 per cent per annum on drafts. In addition, the French duty on imported foodstuffs includes not only the fruit but also the container. The duty on citrus fruits shipped direct from America to Indo-China is at present equivalent to 23 to 25 cents for 220 pounds. If trans-shipped on the way from America, the duty increases about seven times, being in that case about \$1.50 to \$1.75 for 220 pounds. The French tariff is subject to frequent revision, usually upward.

In the past, the importation of fresh fruits was so small and the demand by the foreign population so keen that there was no necessity for fruits to be held in cold storage for any considerable length of time. Fruits consigned to the port of Saigon were bought up and consumed almost as soon as they were received. The development of any considerable market for fresh fruits would require the installation of local cold storage facilities, since at present ships coming directly

from California with refrigeration space call at Saigon only once in forty-five days. The present fresh fruit market for the softer and more perishable fruits is therefore confined to Saigon and its immediate vicinity. For apples, oranges, and lemons, the market is wider, since these may be shipped by train, boat, or truck for short distances provided they are received at Saigon in good condition.

It must be remembered, however, that in any case the market for fresh fruits is confined to the small European population, to the wealthy Chinese, and to a very few of the highest class Annamese. Furthermore, the volume can only be as large as can be disposed of quickly after receipt of fruits from refrigerator ships. Later construction of cold storage facilities may be expected at Saigon. This will somewhat increase the possible consumption of fresh fruits in that locality.

The foreign population of Saigon, consisting almost entirely of French, desire to obtain fresh fruits and vegetables of the type that they have used at home. The native fruits are inferior and insipid. The foreign population of the city would undoubtedly consume fresh imported fruits in fair quantities, particularly as long as receipts are infrequent so that they remain both a novelty and a luxury. Furthermore, in the interior of Cochin-China and Cambodia, there is a small but steady demand for imported oranges from California, particularly around the New Year season. However, the entire market is small, can be easily overloaded, and is precarious because of the lack of cold storage facilities and of adequate distribution.

Canned Fruits.—American canned fruits predominate in the high class stores of Saigon and other cities in French Indo-China and are found on sale in all of the larger towns. In the smaller towns only Chinese canned fruits are on sale. Large general stores in Saigon as well as the food shops conducted by Chinese carry a rather complete line of American canned goods. The sale of canned fruits is almost entirely among the foreign population, although a small number of wealthy Chinese and a very limited number of Annamese consume these products. The Chinese also consume canned lichees, chestnuts, bamboo sprouts, and pineapple, which are imported into Indo-China from Swatow and Singapore. The total volume of these Asiatic canned products imported into the colony probably exceeds the volume of American canned fruits.

Import statistics of canned fruits to Indo-China are incomplete. The total exports from California to French Indo-China are not traceable either in the American export figures or in the French import

statistics, since neither figures include goods that are trans-shipped at other ports.

Peaches probably rank first in popularity, followed by pears, grapes, and apricots. Cherries are only imported in small amounts, owing to the difficulty caused by swelled cans in this hot climate. Wholesale prices at Saigon and retail prices at Saigon and Pnom-Penh are given in table 50. At other points in the interior where American canned fruits are on sale retail prices generally rise about 25 per cent above those quoted at Saigon. It will be noted that in the table below prices at Pnom-Penh were in all cases lower than at Saigon. Merchants in Pnom-Penh were selling from old stocks, while those at Saigon were quoting from higher wholesale prices based upon new stocks.

TABLE 50

CURRENT PRICES, FRENCH INDO-CHINA, NOVEMBER 1929
AMERICAN CANNED FRUITS

	Saigon				Pnom-Penh
	Wholesale Per Case		Retail Per Can		Retail Per Can
	No. 2 ½	No. 1	No. 2 ½	No. 1	No. 2 ½
Apples	\$7.20	\$.....	\$0.50	\$.....	\$0.40
Apricots	7.92	.....	.45	.20	.36
Cherries	8.40	.....	.50	.20	.40
Grapes	4.80	.....	.40	.....	.....
Peaches	6.00	7.20	.40	.20	.36
Pears	7.20	8.16	.45	.27	.36
Plums	4.80	.....	.40	.....	.....
Fruit Salad	9.12	.....	.49	.25	.48

The freight rate from the United States to Saigon on canned fruits is \$17 a ton. In addition, there is a lighterage charge averaging \$1.20 a ton for trans-shipment from the wharves up the river to the customs warehouse. Trucking and coolie charges from the customs warehouse to the dealers' stores average 4 cents a package. The duty on canned fruits is at present about \$2 per 220 pounds. The Indo-Chinese government also imposes an internal tax of 2 per cent in addition to the duty.

Canned fruits are usually ordered on the indent system by dealers through agents located in Saigon. These agents are French firms who are representatives for a wide variety of commodities among which canned fruits are included. Usually, none of these agents carry stocks on hand.

The demand for American canned fruits has been gradually increasing. Sales are made almost entirely in the No. 2½ can, although

recently a considerable quantity of fruits in the No. 1 tall can have been offered for sale in local stores. As yet, however, the sales for these have not been large.

The introduction of the smaller sizes of cans of American fruits may be expected to somewhat increase consumption in Indo-China. It is not probable, however, that any considerable number of the native population can be considered as potential consumers. Thus, the demand may be expected to be limited in the future as in the past to the foreign population, numbering about 20,000 persons, to the wealthy Chinese scattered over the colony, and to a small number of natives whose total number could not exceed 100,000. The opportunities for any large sales of American canned fruits are not evident. It may be expected, however, that sales will gradually increase in the future, and that American canned fruits will continue to hold first place in this market.

Dried Fruits.—Difficulties in Indo-China caused by the damp, humid climate during six months of the year restrict the sale of dried fruits in bulk to the dry season. All of the American dried fruits are found on sale in large stores which cater to foreigners. With the exception of raisins, however, the consumption of American dried fruits by natives is immaterial. In addition to the American fruits, prunes are imported from France, raisins and figs from Smyrna, lichees from China, and dates from the Near East.

In volume of sales, raisins transcend all other American dried fruits in Indo-China. They were originally introduced through the small package of $1\frac{3}{4}$ ounces which retails locally for about 3 cents. In the 15-ounce package, California seedless raisins retail for about 12 cents. Raisins from Smyrna retail at about 27 to 30 cents a pound. Raisins from the small packages are consumed extensively by the natives and are found on sale in rural districts during the dry season. They are generally eaten out of hand as a confection by children, but in the larger packages are used by bakers for the manufacture of cakes for consumption by foreigners and by Chinese. So general is the use of raisins among the native population that they are now regarded as one of the staple commodities for sale in the interior. Along with other foodstuffs, small packages of raisins are frequently placed before gods in the temples. Raisins are thus offered as a sacrifice to placate the wrath of the deities and to bring security for the future. Presumably the gods have recently become as fond of raisins as have the inhabitants of the territory. It is estimated that the total consumption of raisins in the colony is over 15,000 cases per year.

Prunes are second in popularity among California dried fruits, although the total importation is only a small fraction of that for raisins. The consumption of prunes has been limited almost entirely to the foreign population. More recently prunes have gained popularity among a small element of the native people to whom they are sold one prune at a time in a manner similar to that seen in China. In stores catering to foreigners, prunes are sold in tins of 1, 2, and 5 pounds. Retail prices vary from 25 to 50 cents a pound. In smaller containers holding $\frac{1}{2}$ pound, they would probably have a larger sale for local use if the containers could be cheaply manufactured. Tins having a replaceable cover, so that the container may have a further utility, pay a higher rate of duty under the French tariff than cans which, when opened, are thereby destroyed for further use. For this reason tinned prunes sent to Indo-China should be packed in an ordinary can similar to that used for canned fruits.

Dried apricots, peaches, pears, figs, and apples are only used in small quantities by the foreign population. Dried apricots, peaches, and pears were on sale in Saigon at 51 cents a pound. Although they are stocked in the best stores in the large cities, it is evident that the sale is small. It is unlikely to increase.

Dried fruits shipped from California to Saigon pay freight at the rate of \$17 per ton of 40 cubic feet. In addition, there are lighterage charges of \$1.20 a ton from the point of discharge to the customs warehouse. Other additional charges occur in amounts similar to those for canned and fresh fruits.

Dried fruits from America, coming into Indo-China, do so on the indent system through agents located in Saigon who represent French firms which carry a number of agencies. Freight rates from Saigon to places in southern and western Indo-China average about 12 cents a case. To the cities of Hanoi and Haiphong on the northern coast, shipments are made from the United States rather than through Saigon.

Dried fruits probably represent the best opportunity for the expansion of fruit markets in French Indo-China. The packaging of these in small, inexpensive tins of $\frac{1}{2}$ to 1 pound, would doubtless increase sales. There is a certain demand for bulk raisins and bulk prunes in tin-lined cases. Thus far, the use of tin-lined cases has been confined to raisins and has not been obtainable for prunes.

The political, social, and economic status of French Indo-China makes it difficult to carry forward much trade promotion in dried fruits without an expenditure of money beyond the merits of the prospective market. Generally speaking, the local agencies which

represent American firms are less interested in this phase of their business than in others which seem to offer larger opportunities. In addition, the population is very poor. Finally, the governmental agencies are not notably sympathetic toward promotional enterprises for American foodstuffs. The same expenditure of time and money would probably bring larger results elsewhere.

Trade Promotion Methods.—Except in the case of raisins, American fruits have not reached the native population of French Indo-China. Raisins seem to provide an exception to the general rule laid down by all dealers that the natives cannot be considered as a market for fruits from California. The popularity of raisins has been based on the fact that they have been sold cheaply in a small package which contains a considerable number of individual fruits. At first, these small packages provided a confection for children. They later were used extensively by natives of all classes and by the Chinese residents.

The foreign population of French Indo-China is so small that it is negligible in any consideration of large markets for American fruits. Although the demand among foreigners can be increased by more frequent receipts of fresh fruits, by extensive presentation of small cans of fruit, and by the packaging of dried fruits in small moisture-proof containers, the opportunity offered is relatively small.

French Indo-China is being developed by France for the benefit of the French people. Business houses are predominantly French, both in nationality and in sympathy. The government of French Indo-China looks with some disfavor upon the extensive promotion and sale of foreign commodities which are also produced in the mother country. Therefore, any extensive sales promotion enterprise in French Indo-China might encounter the opposition of the French government as expressed through prohibitive tariffs.

Extensive trade promotion in Eastern Asia would have larger results in several other countries than in Indo-China. However, the general principles involved in successful trade enterprise apply with equal force to this territory as to others. The Chinese dealer, static in his trade demands and outlook, is found in Indo-China as also in the Philippine Islands and in China itself. The Far Eastern agent, who represents many firms and many commodities of world-wide distribution is in Indo-China with about the same outlook and perspective as elsewhere. If his sympathies are here more predominantly continental, it is only to be expected. The difficulties and problems of trade promotion in Indo-China are similar to those found elsewhere except that they exist to a larger degree and if they were successfully overcome they would perhaps bring smaller results.

FRUIT MARKETS IN SIAM

TABLE 51
DIRECT FRUIT EXPORTS FROM CALIFORNIA TO SIAM

Kind of fruit	1927		1928		1929	
<i>Canned</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Berries.....	1,732	379	3,612	715	2,621	532
Apples.....	1,157	147	3,438	424	1,854	231
Apricots.....	2,738	367	2,924	380	4,275	564
Cherries.....	10,281	1,709	7,474	1,317	5,592	993
Prunes.....	6,138	957	8,154	1,142	5,203	742
Peaches.....	4,760	603	7,636	944	3,163	357
Pears.....	3,888	592	5,558	900	3,199	517
Fruit for salad.....					2,829	495
Other canned.....	8,751	1,074	2,976	382	913	141
Pineapples.....	1,032	139	192	31	538	90
Jams, jellies, etc.....	7,791	2,001	7,154	1,368	1,515	449
Total.....	48,268	7,968	49,118	7,603	31,702	5,111
<i>Dried</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Raisins.....	7,300	612	42,735	3,866	13,795	886
Apples.....	1,188	176	300	60	512	102
Apricots.....	606	102			144	52
Peaches.....	72	10			48	13
Prunes.....	998	119	589	178	699	94
Pears.....					48	18
Other dried.....	577	101	244	46	1,015	204
Total.....	10,741	1,120	43,868	4,150	16,261	1,369
<i>Fresh</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>
Grapefruit.....					10	82
Lemons.....					8	93
Oranges.....					12	66
Apples.....					85	273
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Grapes.....					7,696	956
Pears.....					44	5
Other fresh.....						

FRUIT MARKETS IN SIAM

The kingdom of Siam, an absolute monarchy, occupies the central and upper portions of the great Malayan peninsula of southeastern Asia. It is bounded by Indo-China on the east, and by British Burma on the west. It stretches southward down the Malayan peninsula to British Malaya. The total area of Siam is estimated at about 200,000 square miles, with a population of approximately 10,000,000 people.



The imports of Siam enter through Bangkok, which is not only the capital of the kingdom but also its principal city.

Thus, the average density is only 50 persons per square mile. However, certain areas in the delta region are thickly populated, while others in the northern hill country are comparatively uninhabited.

Bangkok is not only the capital, but the principal city. It is estimated that 85 per cent of the imports of Siam enter through this one port. The population of Bangkok is about 400,000 persons, but with the surrounding district tributary thereto, the capital area has a population of 827,000 persons. It is in this area that most of the foreign goods are consumed, and the greatest purchasing power of the country gathered.

The total white population of Siam includes only about 2,000 persons, of whom over three-fourths are in Bangkok.* The entire

* General Information Circular. American Consulate General, Bangkok (1928).

consuming power of Europeans resident in Siam is thus less than in many a country village in the United States.

Siam has permitted and, indeed, encouraged immigration under the general principle that the country needed and could support a larger population and that it should welcome to its shores peoples from the nearby crowded countries. For years past there has been an emigration from China aggregating about 100,000 per year. Boats crowded with Chinese immigrants land in Bangkok several times a week. Thus, the population of Siam has become strongly infused with Chinese. Although the official figures credit the Chinese with less than 5 per cent of the population, estimates made by many persons conversant with the country ranged as high as 50 per cent of Chinese in the entire population of Siam. These estimates included not only those of full Chinese race but also others of mixed blood, known as "luk-chins," who despite a partial parentage from the Siamese, show strong Chinese affiliations. Although Siamese control the government under the monarchy and occupy the governmental positions, the Chinese are predominant in commercial circles and, as in other countries to which they have migrated, control the distribution of products from the importer to the consumer.

The people of Siam, of Malay race, are indolent, pleasure-loving, and tolerant. The more ambitious, hard-working, and frugal Chinese have long dominated the commercial circles of the country, but are content to occupy a subordinate position in the nation so long as they are not disturbed in their commercial supremacy. For imported articles, the Chinese are almost the only element considered, except for those articles purchased by governmental agencies. The buying power of the agricultural population is so low, its wants so few, and its activities so narrow, that commercial agencies in Siam give little consideration to the native race. However, there are many well-educated Siamese occupied in the affairs of government. These and a few other wealthy Siamese constitute a group whose total purchases aggregate a considerable amount.

The government of Siam is making strong efforts to develop the interior of the country, both through the extension of the Siamese Government Railways and through the building of automobile roads. However, the transportation of most products is by means of the waterways, which ramify over the great central plain where the agricultural wealth of the nation is concentrated. Small boats loaded with rice come down from the interior to the markets of Bangkok to carry back imported foodstuffs and other products from abroad. To a considerable degree, these imported products serve as a means of

barter in the interior. The Chinese who carry on this trade frequently derive most of their profit, not from the imported article which they sell, but from the rice, teakwood and other products which they trade for imported goods and which they bring down from distant sections of the country.

For the year ending March 31, 1927, imports into Siam totaled about \$90,000,000. Exports amounted to about \$110,000,000. Over \$11,000,000 or about 14 per cent of the imports were classified as foodstuffs. Foodstuffs ranked as the largest single class of goods imported.* The chief items of these foodstuffs were, however, sugar from



The transportation of most products in Siam is by means of the canals and waterways which ramify over the great central plain where the agricultural wealth of the nation is concentrated.

Java, and vegetables, fresh and dried fish, and other commodities from China. American foodstuffs occupy but a small place in these imports. In 1929 the declared direct importation of canned fruits from California totaled only 31,702 pounds, valued at \$5,111. The dried fruits totaled 16,261 pounds, valued at \$1,369. Doubtless larger amounts reached Siam by re-export from Singapore and Hongkong, but the present consumption of California fruits is very small.

The climate of Siam is tropical. The average mean temperature at Bangkok is 83° Fahr. The year is divided into a wet season lasting from May to October, and a dry season from November to April.

* Market for American Foodstuffs in Siam. Trade Information Bulletin 610. U. S. Dept. Commerce (1929). D. C. Bliss.

Thus, fruits shipped to Siam must be well protected against both heat and moisture, since in the damp tropical climate of the country, food-stuffs rapidly deteriorate and become unfit for sale.

Fruit in the Siamese Diet.—As elsewhere in eastern Asia, the basis of the diet of the people is rice. The morning meal usually consists of rice curry, vegetables, and peppers, mixed with salt and garlic. The noon meal is about the same as the breakfast. The evening meal is largely of rice curry. It usually lacks the hot flavoring ingredients used at breakfast. The rice curry of the evening meal is generally of chopped meat and fish. A small amount of fermented fish oil may be added. Among the wealthier classes, fresh native fruits usually conclude the meal. The use of sweets between meals is common throughout all of Siam among people able to purchase them. Very sweet fruit drinks, low-quality ice creams containing fruits such as bananas and fresh cocoanuts, and native candies are extensively used in the towns of Siam.

The native fruits are never cooked but are eaten raw. High-class Siamese families, however, are learning to cook foreign dried fruits so that small amounts of these are now being used. The Siamese home has a very small porcelain or iron stove, in which charcoal is burned. In the country districts, much of the cooking is done over an open fire of twigs and small bits of wood.

The food of the Chinese population is similar to that prevalent in southern China. Their diet differs from the Siamese in that they do not commonly use the hot sauces, curries, and other condiments popular among the native races.

Considerable quantities of salt are used in the Chinese food. The Chinese are particularly fond of shrimps, crabs, and of dried and fresh fish. The poorer Chinese families usually have only two meals a day, while the wealthier classes often have four or five. The Chinese are fond of the canned fruits imported from China. Large amounts of canned lichees, bamboo sprouts and pineapple are consumed. Here, as in China, many Chinese in cities purchase and eat their meals at the small restaurants and eating-shops and curb-stone stands. Other families buy cooked foods from street vendors who come through the Chinese sections of the city crying their wares. Very little cooking is actually done in the Chinese home.

The large influx of Chinese into Siam has influenced the native food habits in the cities to the degree that Siamese are beginning to follow the customs of the Chinese in purchasing cooked foods from vendors or at restaurants. These vendors, operating on a very narrow

margin of profit, are able to sell prepared meals at but slightly increased cost over the raw materials.

The consumption of native fruits in Siam is very large. Much of the population live on a narrow dietary and on very small incomes. The comparative cheapness of native fruits furnishes a means of filling hungry stomachs at a relatively small price. Despite the cheapness and variety of fruits available throughout the entire year, the lower classes of the population have a dietary deficiency which frequently results in beri-beri and other deficiency diseases. In a country such as Siam where fruits are so abundant and cheap, this alone is a commentary upon the low financial status of a large element of the population.

Fresh Fruits.—Despite the volume of native fresh fruits which are in the markets of Siam throughout the year at low prices, a certain demand exists among the Europeans and the high class Siamese who have been educated abroad for imported fruits to grace dinners and banquets, and to provide a novelty in the diet.

The best season for the importation of fresh fruits is between the first of November and the first of January. Most of the national holidays and festivals fall at this time of the year when the weather is less torrid. It is during this season that much entertaining is done.

Oranges have only a small demand in Bangkok because of the prevalence and cheapness of the native orange. California oranges running 200 to the box wholesale at about 4 cents each and retail at about $7\frac{1}{2}$ cents each. The larger sizes sometimes bring double the price. Lemons are uncommon in this market because of the use of the native lime which takes the place of the American lemon. Lemons, however, have been received, 300 to the box, which wholesale at about 5 cents each and retail at about $7\frac{1}{2}$ cents.

Apples have been largely brought into Bangkok from Australia. The shorter voyage and the excellent keeping qualities of Australian apples make them popular. However, due to the fact that Australian apples come into this market during a different season of the year than do American apples, there is a certain small demand for American apples running 113 to 138 to the box. These wholesale at \$3.60 a box and have retailed at 22 cents a pound.

Grapes from California are the most popular imported fruit in Siam. The market for these is between November first and January first. The cost delivered in Bangkok is between 15 and 18 cents a pound. They retail at about 27 cents a pound. Heretofore American fresh fruits received in Bangkok were trans-shipped at Hongkong or

Singapore to boats touching at this port. A recent service by direct sailing once in 42 days has enabled fruits to be received direct from California. The infrequency of sailings makes it possible for only a few direct shipments to reach the market during the brief fall season of the year when imported fruits are in greatest demand. The market is thus easily overloaded since, after the long voyage from America, such commodities as grapes cannot be expected to keep in good condition for a long period.

The cold storage space available at Bangkok is so small as to be almost negligible. Two business houses have refrigeration space which they rent for about $1\frac{1}{3}$ cents per pound per month. Outside of Bangkok no sales of imported fresh fruits are made, the market at the present time being practically confined to the capital and its vicinity.

Fresh fruits are usually ordered on the indent system and are distributed by importers to wholesalers and Chinese shopkeepers. The importers of fresh fruits also have retail stores in which the fruit is sold. Freight from San Francisco to Bangkok averages for grapes, \$25 to \$28.50 per ton of 40 cubic feet; for apples, \$1.10 to \$1.24 a box; for oranges, \$1.50 to \$1.72 a box; for lemons, \$1.92 a box. There is a 5 per cent duty on all commodities entering the country. Boats are generally unloaded at Kolsichang, "The Island of the Four Elephants," from which goods must be lightered to Bangkok. This takes from twelve to twenty-four hours. Lighterage and coolie hire cost about $6\frac{1}{2}$ cents a package. Above the delivered costs, wholesalers and shopkeepers usually add a profit of from 10 to 20 per cent each time the goods change hands from the time they leave the importer.

The population of Siam is exceedingly fond of fresh fruit, which they consume between meals in large quantities. They would undoubtedly appreciate American fruits such as grapes, apples, peaches, and pears provided these could be delivered at a cost within the range of their purchasing power. Since, however, these commodities are so far beyond the possibility of purchase by any except a very small element of the population, and since facilities for the storage of fruits are so meager, the importation of fresh fruit from California to Siam can be only in very small quantities. Neither the buying power of the people nor the facilities for storage, distribution, and sale are available for any large quantity of fresh fruit. Thus, it is probable that, as in the past, the sale of fresh American fruits will be confined to the small luxury class and even then to the times of the year when they are entertaining extensively. The appreciation of American fresh fruits is evident. This is not, however, a proper gauge of the market demand.

Canned Fruits.—Perhaps half of the American canned fruits imported into Siam are consumed by the foreign population and the other half by educated Siamese and by Chinese. American canned fruits are not generally found outside of the capital city. On the other hand, Chinese canned goods such as lichees, bamboo sprouts, and pineapples are extensively imported from China for use of the large resident Chinese population throughout the country. Much canned pineapple is also brought from Singapore. These canned goods at low prices are found in villages and towns of the interior where American canned goods do not reach. Generally speaking, no effort whatsoever has been made to develop the sale of American canned fruits in the small cities, towns, or villages of Siam. Indeed, in many smaller places, the buying power of the people is so low as to make it doubtful whether such efforts would be warranted. In Siam, even more than in many other countries, the buying power of the nation is concentrated in the capital.

Canned cherries are particularly popular among the Chinese. Canned grapes have the largest sale among both Chinese and Siamese because of their lower price. Peaches are probably the most popular canned fruit among foreigners and are also consumed somewhat by natives and by Chinese. Fruit salad is increasing in popularity. Canned apples, apricots, and pears are used only by foreigners in limited amounts. Representative retail prices are given in the table below:

TABLE 52
CURRENT RETAIL PRICES, NOVEMBER 1929
AMERICAN CANNED FRUITS, BANGKOK, SIAM
Prices per can

	No. 2 ½	No. 1
Apples	\$0.30	\$
Apricots .....	.37	0.19
Cherries .....	.48	.28
Grapes .....	.29	.....
Peaches .....	.44	.24
Pears .....	.33	.19
Fruit salad .....	.48	.28

In general, stores in Bangkok catering to the foreign trade carry a full line of American canned fruits in the No. 2½ and No. 1 tall sizes. Prices in other towns in Siam usually increase about 25 to 30 per cent over retail prices in Bangkok. It is infrequent, however, for much American canned fruit to be found in other towns of the kingdom. The 8-ounce cans of fruit recently introduced in America are not as yet on sale in Siam.

Freight rates from California to Siam are \$17.90 per ton of 40 cubic feet, in addition to which there is a 5 per cent duty and a lighterage charge of about 6½ cents a package from the point of discharge down the river to Bangkok. In addition to direct shipments from America, indirect shipments are made from Singapore. Native boats loaded with rice, cattle and hides journey from Bangkok to Singapore. Returning, they bill cargoes at low rates. Any commodity that proves popular is likely to find the market flooded by shipments made by Chinese dealers through representatives in Singapore



Although stores in the interior of Siam sell many imported articles, American canned and dried fruits are infrequently on sale.

who send the goods to Bangkok on these native boats. Thus, the price of canned goods in Bangkok has been subject to fluctuations from these unforeseen shipments which arrive from time to time on native crafts.

Likewise, in shipments of various foodstuffs into the interior, Chinese lighters operate on narrow margins of profit. Boats traveling over the network of rivers and canals into the interior, there buy up cargoes of rice, hides, and teakwood. In order to secure these cargoes, they carry from Bangkok into the interior whatever commodities they believe will find ready exchange as a means of barter for the rice and other products which they hope to secure. In such cases, the Chinese usually expect to make their profits from the

products brought back rather than from the imported goods which they use as a means of exchange. The impossibility of forecasting wildcat shipments to and from the market of Bangkok has made it difficult for agents at Bangkok to so operate that dealers handling the commodity can be assured of a reasonable profit. All efforts to build up demand are based upon the willingness of the Chinese dealers to push the goods. Such willingness requires that they make a profit. The flooding of the market with unexpected shipments of canned goods has made prices erratic and dealers fearful that they may not be able to profitably dispose of the goods.

It should be understood that the demand for American canned fruits in Bangkok is small and that, from a practical standpoint, they have not permeated the country. At conferences held at Bangkok, importers and dealers were of the opinion that with proper promotion the 8-ounce can of fruit could be successfully sold among a considerable element of the population. Both the Siamese and Chinese of the better classes are sympathetic toward imported articles. They like sweets. They are fond of fruit. The limiting factor in the past has been that American canned fruits in the large No. 2½ can were beyond the range of purchase of all but a very minute percentage of the population. Furthermore, importers and agents located in Bangkok have been unwilling or unable to devote much time and effort to the promotion of American canned fruits because of the small volume of business that was possible. If small cans of fruit could be extensively introduced into the retail stores of Siam, the present consumption might be materially increased. There is also an opportunity for increased consumption of canned fruits among the European population. Although this market is not large enough to be of consequence by itself, trade promotion conducted with and through the native population might be expected to result in a larger use of these fruits among Europeans.

Dried Fruits.—The only dried fruit from America having extensive sale in Siam is raisins. These are used extensively both by the Chinese and Siamese populations. Practically all kinds of American dried fruits are found on sale in the stores catering to foreigners, but the turnover is so small that it is surprising that so large a variety is stocked.

Raisins are chiefly shipped into Siam in 25-pound tin-lined cases in which they are distributed through wholesalers to retailers. Each tin-lined case is usually accompanied by a thousand small paper envelopes. The retail dealer places from eight to twelve raisins in each of these envelopes, which he then offers for sale at one local cent

each, which is equivalent to less than one-half of an American cent. Raisins are also sold in the $1\frac{3}{4}$ -ounce package which sells for from $3\frac{1}{2}$ to 5 cents, and in the 15-ounce carton which retails for about 13 cents. They are also offered, largely to the foreign trade, in the 1-pound, 2-pound, and 5-pound tins.

One of the commercial wonders of the Far East is the way in which California raisins came into popularity in a day. Since they are used mainly as a confection for eating between meals, the demand is not necessarily permanent, and indeed there are evidences that they are less popular in Siam than formerly. Competition among different brands and irregular and unexpected shipments into Bangkok from other ports of the Orient have made it difficult to regulate supply to demand. Thus, the price has been forced downward so that dealers are less interested in pushing the sale of this product and less willing to buy stocks in advance for fear that further declines in price may result in losses to them. Although the population in and around Bangkok are the chief consumers, it is estimated that about 25 per cent of the raisins shipped into the country are sold through the many retail stores in country districts.

Prunes are only used by Europeans, with the exception of a very small amount sold to the Chinese population. It is recognized, however, that it might be possible to popularize prunes among the Chinese and some of the native population provided it were possible to sell them in small units similar to the manner in which raisins are packaged. Prunes delivered in Bangkok cost about $13\frac{1}{2}$ cents a pound; they are on sale at retail for 20 cents a pound. Unless packed in tin, prunes rapidly become unfit for consumption through souring or through insect infestation. Therefore, prunes are usually sold in a 1-pound tin, in which form they are unavailable to the middle classes of the population whose purchasing power is not high enough to include such a large unit.

A small amount of white figs are sold which retail in tins. These are used mainly by the Chinese at festival seasons. In tins, apples retail at 48 cents a pound, apricots at 44 cents a pound, and peaches at 40 cents a pound. In addition to the California dried fruits found on the market, currants are imported from Australia which retail at 20 cents a pound. Raisins from Australia retail at 13 cents a pound; dried lichees from China were sold at 36 cents a pound. The Chinese stores also carry large amounts of Chinese dried fruits of the type that are coated with sugar and honey. These are as popular here among the Chinese population as they are in China.

Freight on dried fruits from California ports to Bangkok is \$17.90 per ton of 40 cubic feet. In addition thereto, there is a duty of 5 per cent and a lighterage charge of about 6½ cents a case. Freight rates by railroad into the interior are high. Therefore, commodities are generally carried by boat through the numerous canals wherever they can be utilized. There are no uniform rates for such transportation, since the method is to arrive at a bargain with the boatman.



Merchandizing in Siam is in the hands of Chinese who control the commercial enterprises of the kingdom.

Dried fruits are generally imported into Siam on the indent system, although a few firms carry small stocks on hand. Sales are generally made to Chinese wholesalers who may themselves run a retail business as well as conduct a wholesale enterprise.

Because of the hot, damp climate, dried fruits shipped in bulk or in cartons quickly spoil. Even if the cartons are wrapped in waxed paper, spoilage results because the cartons are bored by various insects. It is, therefore, necessary to pack dried fruits either in tin-lined cases or in small retail-size cans. The sale of raisins in envelopes and in small cartons has been made possible by the rapid turnover resulting from the volume of business in this fruit. Other fruits not

so quickly salable cannot be feasibly shipped into this market by that method.

Prunes present the best opportunity for the expansion of the market for dried fruits. Importers, wholesalers, and dealers agree that with proper trade promotion these might be popularized among the upper and middle classes of Chinese and Siamese throughout the nation. Prunes should be sold to retailers in small vacuum tins of from 1 to 5 pounds, with which should be supplied paper envelopes large enough to hold one or two prunes; the expectation being that these would be retailed by hawkers and at street stands in the same manner in which raisins have been sold. As the volume of sales increased, and the fruit became more popular, it would then be possible to ship prunes in tin-lined wooden boxes with the expectation that retailers would be able to dispose of these prunes by the envelope method before they spoiled. At present, however, prunes in 25-pound wooden boxes, whether tin-lined or not, are a mistaken method of packing for this market. Figs and pears might also be popularized by similar methods. It is not probable that the Chinese or native population would respond to efforts to interest them in dried apricots, apples, or peaches.

Trade Promotion Methods.—At present the sale of canned and dried fruits is conducted through importing agencies which handle a large number of products among which fruits are included. In the past, the sales have been so small and the difficulties connected with the business so many that little concentrated attention has been given to these products by the agents in charge. In return they have received little encouragement from the American companies that they represent and have felt that the business was immaterial either to the industry at home or to their own profits.

If successful trade promotion for American canned and dried fruits is to be conducted in Siam it will be necessary to delegate some person or persons to develop the business and to travel throughout the country. It will also be necessary for the fruit to be offered for sale in small unit packages, in an effort to bring it within the purchasing power of the people.

Advertising in Siam is not a successful method of trade promotion. The Siamese generally dislike blatant forms of advertising and are more inclined to respond to some method of personal appeal. The distribution of free samples in connection with entrance fees to moving picture shows or at fairs and festivals is a more effective method than a similar amount of money expended for advertising. There

are three languages in use in Siam: English, Siamese, and Chinese. On all packages it is desirable to print labels in at least two, if not three, of these languages. It is furthermore highly desirable, if the label is to give a picture of the fruit, to have that picture as the fruit appears inside the package rather than as it appears on the tree. Labels on California fruits showing whole red peaches with accompanying green leaves are likely to seem a deceit to the Siamese when they open the package and find therein yellow sliced peaches.

Demonstrations before schools are an effective method in Siam. The government is encouraging education and the people respect it. The upper governing class in this absolute monarchy have not only a political but a moral hold upon the people which enables them to set the fashion. There are many clerks and other middle-class employees in Bangkok who eat at least one meal a day in tea houses and restaurants. If California canned and dried fruits were served in these restaurants at a low cost, it would go far in popularizing them among the people. All trade promotion should seek to emphasize that California fruit of the varieties promoted is healthful, inexpensive, and delicious. California fruits are not yet in the public mind. The aim of trade promotion should be to bring them into public consciousness and to keep them there.

Siam is absolutely dependent upon the rice crop. Probably 70 per cent of the population derives its livelihood from that one industry. Although large amounts of teakwood are exported, the value of this is inconsiderable when compared with the value of rice. Siam is thus a one-crop country subject to violent fluctuations in its economic condition, according to the condition of the rice. Trade promotion conducted in Siam would thus face the difficulty of dealing with a people of varying purchasing power. Conducted in a good rice year, trade promotion might achieve a considerable result, whereas similar methods in the following year with a bad rice crop might be totally lost. Even with these varying conditions, however, it is probable that the people of Siam have as high a purchasing power as similar numbers in China, and that trade promotion might be as effective here as among the Chinese. The present system of distribution, by which fruit is indented into the country through agents largely occupied in other affairs, cannot be expected to result in any material increase in sales. If a larger volume of California fruit is to be sold in Siam, the entire method of distribution must be modified, a reasonable sum of money must be expended, and the packages must be adapted to the needs and purchasing power of the people.

The largest opportunity for an increased sale of California fruit in Siam is with prunes. It is probable also that the 8-ounce can of fruit might, to a limited degree, be successfully promoted among the Oriental population. With the exception of raisins, American canned and dried fruits are practically unknown to the masses of the people of Siam.

FRUIT MARKETS IN BRITISH MALAYA

TABLE 53

DIRECT FRUIT EXPORTS FROM CALIFORNIA TO BRITISH MALAYA

Kind of fruit	1927		1928		1929	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
<i>Canned</i>						
Berries.....	44,797	8,131	45,013	7,901	58,185	10,474
Apples.....	22,846	2,548	18,642	2,226	11,875	1,626
Apricots.....	53,313	6,873	55,723	6,513	44,414	5,454
Cherries.....	32,772	5,384	51,552	8,713	33,948	6,150
Prunes.....	66,064	8,606	49,345	6,748	49,265	6,177
Peaches.....	114,429	12,580	131,010	13,586	114,832	12,555
Pears.....	84,925	11,561	90,446	12,105	84,596	11,278
Fruit for salad.....					62,966	11,449
Other canned.....	401,449	37,949	225,696	23,266	249,994	25,329
Pineapples.....	3,370	471	6,269	835	2,975	501
Jams, jellies, etc.....	70,090	15,690	70,146	13,983	14,992	4,292
Total.....	894,055	109,793	743,842	95,876	728,042	95,285
<i>Dried</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Raisins.....	73,450	6,178	65,393	5,521	123,101	9,379
Apples.....	15,647	2,537	20,218	2,887	18,262	3,468
Apricots.....	2,067	422	3,452	517	5,697	1,282
Peaches.....	1,232	212	1,373	164	2,600	472
Prunes.....	27,729	2,821	57,300	5,831	53,204	5,797
Pears.....					3,402	305
Other dried.....	4,919	1,189	7,422	1,411	11,946	2,330
Total.....	125,044	13,359	155,158	16,331	218,212	23,033
<i>Fresh</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>
Grapefruit.....	1,645	7,182	1,929	8,793	2,642	13,610
Lemons.....	971	5,675	2,113	10,343	1,338	8,095
Oranges.....	9,338	50,400	9,987	56,523	11,700	63,981
Apples.....	24,623	50,480	25,446	45,091	38,227	87,053
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Berries.....	800	205			22,338	4,023
Grapes.....	268,390	20,264	355,149	31,131	463,973	42,147
Pears.....	1,963	138	14,459	929	19,439	1,361
Peaches.....			300	24	1,040	104
Other fresh.....	1,781	340	1,392	76	22,805	2,063

FRUIT MARKETS IN BRITISH MALAYA

British Malaya occupies the southern end of the long Malayan peninsula which stretches southward 400 miles, with its tip almost on the equator. Politically, Malaya has a diverse organization consisting of the Straits Settlements, the Federated Malay States, and the Unfederated Malay States. For the purposes of this report, however, these political divisions are of minor importance, so that the territory may be considered as a unit. The area of British Malaya totals 52,500 square miles. With a population of 3,864,000 people it has an average density of 74 persons per square mile. The country as a whole is a low-lying peninsula with many shallow rivers and with a mountain range on the east coast traversing it from north to south. Originally, the whole area was a dense jungle. In many sections, this has been cleared away so that well-developed rural districts now present an appearance of high cultivation. Government railways traverse the peninsula from north to south, connecting with the Siamese railroads to Bangkok. Motor highways, in splendid condition, are maintained between all the larger towns. However, much of the commerce of the peninsula is carried by coastwise shipping on small steamers, boats, and native junks. The shallow rivers furnish an artery for slow-moving freight at low rates.

The population of British Malaya, originally of the Malay race, has been augmented by large migrations of Chinese and of natives of India, so that at the present time the Malays constitute less than half of the population. In 1928 there were 1,787,000 Malays, 1,374,000 Chinese, 628,000 natives of India, 14,913 Eurasians, 21,093 Europeans, and 37,836 others. The Chinese population almost equals the number of Malays, while the natives of India have rapidly increased in numbers since they were introduced at the beginning of the present century to supply cheap labor for the rubber plantations. The Malays are primarily agriculturists, cultivating rubber and rice, or are engaged in fishing. The Chinese are the traders and shopkeepers and are laborers on the plantations and in tin mines. The Indians are mostly engaged on the rubber estates. The Eurasians, as the half-castes are called, are clerks in business houses and in various offices. The Europeans are, of course, the dominant race, occupied in the affairs of government and commerce, and in the management of the mines and larger estates.

Singapore is the great city of British Malaya and, indeed, of all southeastern Asia. With its population of 532,000 it not only dominates the commercial affairs of British Malaya but also, through its position on an island close to the tip of the Malayan peninsula, serves as a port of call for all ships passing between east and west, and as a port of trans-shipment between India, the Dutch East Indies, Siam, and China. Products to and from these countries pass through Singapore in enormous volume. It is the seventh port and one of the most strategic points on the world's highways. Among the other cities of Malaya, Malacca has 188,000 people, Penang 181,000, and Kuala Lumpur 101,000. All these cities are located on or close to the west coast of the peninsula. They are not only centers of population but also distributing points to and from the interior of the country.

Primarily, the prosperity of British Malaya depends upon the markets for rubber and tin, for which products it is the chief producing country in the world. All civilization rides on automobile tires manufactured from Malayan rubber. Forty per cent of the world's output of tin comes from this country. The total rubber acreage in 1928 was 2,750,000 acres, not all of which was yet in production. The exports were 408,693 tons. In the same year 61,935 tons of tin were exported. Although 663,000 acres of rice are grown, the country is on an importing basis for this important foodstuff.* Thus, to a large degree, the purchasing power of the people and the entire prosperity of the country are dependent upon the price and demand for rubber and tin. At the present writing, the values of both rubber and tin are so low that the whole country suffers under the depression.

The introduction of natives from British India, chiefly Tamils from southern India, who came in as laborers on the rubber plantations, was the result of an attempt to decrease the cost of labor. Plantation laborers are paid from 25 to 35 cents a day, together with a certain amount of rice. Chinese coolies, who are largely employed in the tin mines, receive somewhat higher wages than the Tamils. The Chinese in Malaya generally are more prosperous than those occupied in similar industries in their home country, since the wages for Chinese artisans rule 50 per cent higher than in China. Skilled workers in the cities generally receive about \$1.00 a day. Among the whole Chinese population there are a considerable number of well-to-do and rich Chinese. Malacca is famed as the home of Chinese millionaires. From Penang it is estimated that in northern Malaya there are 30,000 rich Chinese. Nevertheless, mention is more likely to

* Unpublished report. D. C. Bliss, Trade Commissioner, Singapore.

be made of the comparatively few well-to-do than of the very large number of Chinese who are but little above the rank of poverty.

A considerable portion of the rubber plantings of Malaya are in small holdings owned by Chinese and natives. In times of high rubber prices these "native owners" have a comparatively large purchasing power. It is estimated that half the rubber in Malaya is cultivated in acreages of less than 100 acres, owned and worked by Chinese and natives, and that there are more than 100,000 such plantations. Thus, these native rubber plantings equal in area the rubber estates owned by Europeans and the larger estates managed by Asiatics.

The depression in the price of rubber and tin is manifest directly not only in the general purchasing power of the country but also in the scale of wages and in the amount of employment among the numerous Asiatic population. In a time of low prices, wages on the estates and in the mines are reduced; clerical staffs are cut down. In prosperous years many of the Chinese firms pay their employees not only a wage but also a bonus. In years of low prices this bonus is not paid. Small though it may be, the bonus is often the only portion of the clerical income that may be invested in luxuries. The price depression in British Malaya is thus felt throughout the entire population of the country, affecting the native owners, the laborers, the storekeepers, and those occupied in trade and commerce.

Here, as in all countries to which they have migrated, the Chinese control the distribution of goods from the European agent to the consumer. Their control of merchandizing is due to their willingness to operate on a very small margin of profit, and is assisted by their knowledge of credit and trade among their own nationality. More recently, natives from India have begun to enter the commercial field but, as yet, their activities are negligible and are confined to the smallest retail establishments.

Europeans introducing imported goods into Malaya generally consider only the white race and the Chinese as possible purchasers. The Malays and natives of India are not usually taken into consideration when discussing trade possibilities. The only exception to this is in the interior when in times of high rubber prices native planters suddenly find themselves in comparative affluence. Since the production of rubber is increasing faster than the consumption, it is difficult to predict when, if ever, these times of prosperity will again favor the native planter.

Thus, in Malaya, the upper classes consist of the Europeans and of a comparatively few wealthy Chinese. The middle classes are the Eurasians, the Chinese clerks, storekeepers, and skilled artisans. Into

this class the native Malay planter sometimes intrudes. The great mass of the population—Chinese laborers in mines and on plantations, Tamil workers on rubber estates, Malay farmers—holds little purchasing power for imported luxuries.

The climate of British Malaya is oppressively tropical. Lying almost on the equator, the temperature varies but slightly during the entire year. The seasons are marked only by a wet and a dry season. These seasons are irregular and vary for different parts of Malaya, although April to October is the accepted dry period. Under the hot and humid conditions of the country, the food habits and the trade demands of the people are directly influenced by the climatic conditions by which they are always surrounded. Materials of all kinds sent to British Malaya must be protected against both heat and dampness, as well as from the insect pests, molds, and fungi which flourish in the humid atmosphere.

Fruit in the Diet of British Malaya.—Large amounts of fresh fruits are consumed by all classes in British Malaya. Fruits are eaten uncooked, with the exception of bananas, which are sometimes fried in a batter and served as one of the dishes at a regular meal. Fruit is largely consumed between meals, except among the upper classes where it is sometimes used as a dessert.

Above all, the Malayan likes hot sauces. Perhaps the heaviest amounts of spices and condiments used anywhere in the world are in the Malayan diet. These hot dishes act as a stimulant to the appetite, and perhaps to the digestion of those living in this perpetually warm climate. Fruits are often eaten green. In that case they are sliced, sprinkled with pepper or a hot chili sauce. In this state their original flavor is probably not perceptible. Hucksters on the streets offer, for a half-cent each, large slices of ripe pineapple over which is sprinkled a pepper sauce. With such an abundance of hot, stimulating condiments used in the food, delicate flavors are not in great demand. Furthermore, sweets are not usually consumed in large quantities. Sweetmeats find their largest use among children, although various forms of candies and candied fruits are occasionally eaten between meals, just as an American might stop at a street stand to buy a 5-cent bar of candy or a package of chewing gum.

The Chinese, who are the largest potential consumers of foreign products, quickly divert from their home food habits when living in Malaya. They tend to follow the same liking for hot sauces shown by the natives. Even Europeans resident in the country develop an increasing desire for hot flavorings and for occasional meals of native food. Among residents of the tropical East who have returned to

their European homes, the demand for hot sauces still continues. The returned Easterner has furnished literature with a favorite figure. He is always depicted as being short of temper and digestion, but as longing for the hot sauces and curries of the tropics.

The change in the food habits of the Chinese after coming to the really tropical country of Malaya is significant in discussing the trade demands for American fruits. Canned American fruits are not in demand here among the Chinese. When asked to choose between a large can of first-class American peaches and a half dozen small native bananas, the Malayan Chinese would probably choose the latter. In China, canned fruits are liked for their sweetness. In Malaya they are not liked because of it. Fresh fruits are cheap and abundant. They are usually firmer than a canned fruit. These people like a hard, firm fruit.

Normally, the Chinese eat three meals a day, although the more wealthy classes, particularly the Cantonese, may eat five. Rice forms the staple in at least two of these meals. In others, macaroni, vermicelli, or other starchy foods may take the place of rice. With the rice and other starches are used cooked vegetables and meat, chiefly pork. The Chinese diet in Malaya thus far resembles that in their native land. But as the Chinese remain longer in the country, they add to their staple foods larger amounts of condiments until the so-called "Straits-born" Chinese consumes a diet as strongly condimented as do the Malays. Highly-salted condiments, sour condiments, and above all, hot condiments are regarded as a necessary part of the food supply. Sweets are used between meals but they rank no higher in the public taste than do materials that are salt or sour, if as high, and are considered far below those that are hot. So-called fresh fruits are shipped into Malaya for Chinese consumption from southern China. They are preserved in a brine and are packed in kegs or jars. Apparently the salt does not detract from their popularity with the consumer.

Large quantities of preserved and pickled fruits are sold on the streets under the general name of 'kana.' This name has come to cover a wide variety of fruit products, purchasable for a local cent, about equal to half an American cent. All of these are highly seasoned so that to the uninitiated the original flavor is not evident. Kana may be salty, sour, hot, or sweet. Hundreds of street stands sell it to passers-by, as do food-shops and coffee shops. At one small shop thirteen such products were purchased, some of which were as follows: Dried olives of a nutmeg color, tasting both sweet and sour; dark red

plums cut into thin slices dipped in syrup tasting sweet and sour; dark brown plums crushed flat, treated with powdered licorice and tasting sour; black dates dried and then boiled in a sugar syrup; dried salted dates rolled in licorice powder and tasting very salty. Twenty other different products could be purchased in any one of a hundred stands on the prominent streets of Singapore.

The diet of all classes in Malaya is thus characterized by a demand for strong condiments as a zest to the appetite in the consumption of



In British Malaya many kinds of preserved and pickled fruits are sold on the streets under the general name of "kana." Thirteen kinds were purchased at one stand for about one-half a cent each. These condiments are eaten between meals to lessen the growing hunger.

rice, vegetables, and meat. Fruit, particularly native fruit, is purchased in great amounts when it is cheap and abundant, but it is largely consumed as a refreshment between meals.

Fresh Fruits.—Native fruits are abundant in British Malaya during the entire year. Nevertheless there is an important and a growing market for fresh fruits from other countries.

Five countries, other than the United States, are competing for the fresh-fruit markets of Malaya. Australia sends apples, peaches, pears, grapes, plums, and oranges in small amounts. Since Australia is south of the equator, its seasons do not correspond with those of America. Japan ships apples and pears to Malaya. At present the importations are small, but it is evident that the Japanese are desirous

of developing this market. From China are imported pears, apples, oranges, pomeloes, and persimmons. Their low price and low quality fit them primarily for the Chinese trade. Spain and other Mediterranean countries send grapes. In earlier years these reached a considerable volume, but in face of the increasing shipments and lower prices from America, the European shipments have greatly decreased. Palestine, through the port of Jaffa, has begun to ship oranges of good quality. Although as yet these have been received only in small quantities, the future volume may be expected to increase. Thus, from both hemispheres, and from East and West, fresh fruits come to the city of Singapore at the cross-roads of the world. For practically twelve months of the year, fresh imported grapes, apples, and oranges are on sale.

Native fresh fruits are many. The following table shows some of the more prominent of these, their seasons, and the average retail selling price in average seasons in Singapore.

TABLE 54
NATIVE FRUITS IN BRITISH MALAYA

	Season	Average retail price
Mango.....	All year.....	2½c-17c each
Banana.....	All year.....	½c-1c each
Orange.....	All year.....	2½c-5c each
Papaya.....	All year.....	2½c-7c each
Lime.....	All year.....	½c-1c each
Pineapple.....	All year.....	2½c-5c each
Plantain.....	All year.....	½c-1c each
Cocoanut.....	All year.....	4c each
Chiku.....	May-Dec.....	1½c each
Pomelo.....	Aug.-Feb.....	4½c-6c each
Duku.....	Aug.-Nov.....	6c lb.
Pulasan.....	Aug.-Nov.....	¼c each
Rambutan.....	Aug.-Nov.....	3c doz.
Mangosteen.....	Aug.-Sept. and Jan.-Feb.....	½c each
Durian.....	Aug.-Sept. and Jan.-Feb.....	6c lb.

Of all these, the durian, mangosteen, mango and banana are the most popular. So fond are the people of durians that during a season when this evil-smelling fruit is cheap and abundant, whole cities reek with it. In the interest of public health, police have been known to take action in some of the towns of British Malaya against the universal eating and casting away of durians. The big tobacco companies state that during a good durian season their sales of cigarettes are notably decreased. This is abundant testimony to the liking of the people for this fruit as well as to the low purchasing power of the

general public. The passion for durians cannot, however, be judged by ordinary standards since the people believe the durian has a medicinal and physical reaction. Mangosteens and mangoes are scarcely less favored. When these fruits are in season the populations seem to be continually occupied in eating them.

Statistics fail to show clearly the volume of imported fresh fruit reaching Malaya. Singapore is a port of trans-shipment for all Malaysia. Thus, not all the fruit delivered at Singapore remains for consumption in the country. Likewise, fruit from Canada and the United States is frequently trans-shipped at Hongkong. Thus neither the export figures from America nor the import figures at Singapore give an accurate basis for statement. Nevertheless, the figures given in table 55 from the Annual Summary of Foreign Imports and Exports from British Malaya, 1928, are probably indicative of the actual situation.

TABLE 55
FRESH FRUIT IMPORTS, BRITISH MALAYA

From	Amount Tons	Value
United Kingdom	36	\$ 17,662
British Possessions	2,515	372,079
Continental Europe	14	6,515
Japan	366	36,779
China	4,887	414,155
United States	1,090	240,722
Others	2,190	153,357
Total.....	12,098	\$1,241,272

Among fruits from America, apple imports probably rank higher than all others combined. Prices, of course, vary with the year and the season. Packed 125 to the box, delivered costs ranged from \$3.30 to \$3.70 a box. These wholesaled at about \$4.90 a box and retailed in Singapore at 4 cents to 5¾ cents each. In Penang the retail price was about ¼ cent greater.

Oranges have ranked second in popularity. In boxes of 156 they usually cost delivered \$8.60 to \$8.80 a box. In 1929, costs ranged from \$6.55 to \$8.80. Oranges averaged at wholesale prices \$9.05 a box and sold at retail from 5½ to 7½ cents each in Singapore. In Penang they were found on sale at 15 cents each.

Grapes have enormously increased in their shipment and sale to Singapore markets. The increase in ships having refrigeration facilities, the augmented interest in California, and the enlarged cold storage warehouses at Singapore have all resulted in a notable increase

in grape shipments during the last two years. Costs and prices are decidedly erratic. Delivered costs at Singapore may average \$3.55 in 32-pound lugs and \$4.80 in 32-pound kegs. These have wholesaled at \$3.75 and \$5.10 respectively, and have retailed at 28 to 34 cents a pound. However, retail prices fluctuate violently, based upon the visible supply. The Chinese fresh fruit dealer operates upon short credit and small capital. He must quickly realize on his stocks in order to pay his bills. Furthermore, he is a natural gambler, accustomed to taking losses. For example, if grapes cost the dealer \$8 a keg he may wholesale these at \$18 or at \$4, according to the supply at the moment. A small immediate surplus sets the Chinese market in a selling panic. The local price depends both upon the visible supply and the amount of cash needed by the dealers to meet their bills. Owing to the unexpectedly large volume of grapes in 1928, numbers of Chinese dealers lost from \$4,000 to \$5,000 each in California grapes. In 1929 losses were not so large.

Pears, and plums have been received in this market but only in small quantities. Losses during shipment are heavy. Pears are said to have lost 50 per cent in shipment. Even oranges are said to be a 25 per cent loss in transit. Trial shipments of peaches have been unsuccessfully made.

Grapefruit have only a small market in Singapore and are primarily desired when the pomeloes are not in season. Packed 100 to the box, they cost delivered \$4.80, wholesaled at \$5.05, and retailed at 8½ to 11½ cents each.

Fresh fruit is ordered from America by Chinese wholesalers who indent through local agents of California exporters. The Chinese distribute the fruit to retail stores on 30 to 60 days' credit. Fruit is also ordered by cold storage companies on their own account. These firms not only sell to Chinese wholesalers, but also retail the fruit from their own stores maintained in connection with their cold storage plants.

Freight rates from California points to Singapore are about as follows: Apples, \$1.10 a box; oranges, \$1.50 a box; lemons, \$1.70 a box and \$0.90 a half box; grapefruit, \$1.55 a box; grapes, \$25 per ton of 40 cubic feet; peaches, \$32 a ton. Singapore is a free port thus there is no duty charged. Harbor dues average 5.7 cents a case. Delivery charges from ship to cold storage warehouses and thence to dealers average about the same amount. Interest on drafts averages from 2 per cent to 6 per cent. Fruit frequently changes hands two or three times after it leaves the importer, each dealer averaging perhaps 5 per cent in increased price.

Singapore has two cold storage plants that rent space for fresh fruit. The total space available is sufficient for 10,000 to 15,000 packages. Charges average 15 cents a package for the first week and 10 cents for each week thereafter.

Probably 60 per cent of the apples and grapes, and 70 per cent of the oranges are consumed in Malaya outside of Singapore. These are shipped to Penang, Kuala Lumpur, Malacca, Ipoh, and smaller points. The government railways own and operate twenty refrigerator cars. No public cold storage space is available for rental in the smaller cities, although private companies operate plants for storage of their own fruits in seven of the smaller towns.

The consumption of imported fresh fruits in Malaya is limited by the depressed financial condition of the country, by the competition of cheap native fruits, and by the difficulties of distribution to the scattered population to whom these fruits are within the possible range of purchase. The market demands a high-quality product. Much inferior fruit has been shipped into Singapore. If Malaya recovers its financial prosperity, and if fruits of high quality are shipped, the volume of imported fruit consumed can be increased considerably over the present figures. The greatest opportunity for increased sales lies in the smaller towns of the interior. The Singapore market is already comparatively well supplied. The upper and middle classes in interior cities still present possible opportunities for future expansion.

Canned Fruits.—In British Malaya, American canned fruits are found on sale at all the better stores in the towns, at food shops in the railroad stations, and at the plantation stores on the larger rubber estates. However, canned fruits with the exception of grapes, are used only by Europeans and by a few rich Chinese.

Singapore is the center of the pineapple growing and canning industry. Over 40,000 acres are planted to pineapples. While quantities of these come into the local markets as fresh pineapple, the chief outlet is through the canning industry. There are twelve canning factories in and near Singapore, and one factory in Selangor. Although the quality of the canned product is inferior to Hawaiian pineapple, Singapore pineapple has a large sale because of its low price. In 1-pound cans pineapple retails locally at 4½ cents a can. Enormous quantities are exported to other countries. In 1928 there were 51,969 tons of canned pineapple exported from British Malaya. Of this, 33,453 tons went to the United Kingdom and 1,096 tons to the United States. Singapore canned pineapple is found on sale through all the

coastal cities of China. To Hongkong are exported 5,283 tons, while 744 tons go to other ports in China.*

Chinese canned fruits, such as lichees, bamboo sprouts, peaches, and pears, are sold in all the Chinese food shops. Retail prices range about 17 cents in the No. 2 can. Dutch and Swiss canned fruits are found in the better stores catering to foreigners but, as the prices are higher than those for California canned fruits, they have only small sale. English jams are popular with the European trade since the great majority of Europeans in Malaya are British. These jams are usually sold in 1-pound cans.

The greatest market for American canned fruits is for a low-priced can of Muscat grapes in the No. 2½ size. These grapes are sold almost entirely to the Chinese and are chiefly used in connection with banquets and dinners. At these dinners there is a large consumption of hot spiced foodstuffs and of heavy distilled liquors such as brandies. The canned grapes are poured into a dish and over them is placed cracked or shaved ice. This ice in melting dilutes the liquid on the grapes, making it less sweet, and cools and hardens the fruit. Those attending the dinner eat these grapes, one by one, between courses or between drinks to cool the mouth after the hot foods and beverages. Canned cherries are liked and are used in the same manner, but are generally regarded as too expensive for popular use. Both grapes and cherries spoil in this hot climate from swelled cans caused by a gas generated by the pits. However, this difficulty is less in grapes than in cherries and, due to their lower price, the turn-over in grapes is more rapid so that less spoilage results. During 1929 canned grapes sold at wholesale as low as \$1.80 a dozen in the No. 2½ can.

Peaches are second in popularity among canned fruits, but the market is comparatively small, since about 75 per cent of the peaches imported are consumed by Europeans. Pears rank third in popularity and are used only by the European trade. Other canned fruits of all the principal varieties are found on sale in all towns but their consumption is limited by the small number of the white race in the country.

Canned fruits from California sell in British Malaya at reasonable prices, as judged by other Asiatic markets. Five or six prominent American brands are on sale. Competition between these brands keeps prices down to a low margin of profit. Generally, prices increase by 2½ to 5 cents per can at interior cities over prices at Singapore. How-

* Return of Foreign Imports and Exports, British Malaya, 1928.

ever, up-country stores usually hold older stocks than those in Singapore, therefore, in a time of rising prices canned fruit may be actually cheaper in the smaller towns than in Singapore. This was true in some cases in November and December, 1929. Although prices vary with the quality and brand, the prices in table 56 are illustrative of those current at the time this investigation was made.

TABLE 56
CURRENT PRICES, BRITISH MALAYA, NOVEMBER–DECEMBER, 1929
AMERICAN CANNED FRUITS

	Per case, wholesale				Per can, retail							
	No. 2½		No. 1		No. 2½			No. 1			8-ounce	
	Singapore	Penang	Singapore	Penang	Singapore	Penang	Kuala Lumpur	Singapore	Penang	Kuala Lumpur	Singapore	Penang
Apricots.....	\$6.65	6.69	7.50	6.55	37	31	31	20	17	20	11½	12
Apples.....		6.18			28½		37					
Cherries.....	8.75	9.03	10.20	10.20	40	42	40	31	23	23	17	13½
Pears.....	8.00	8.09	8.90	8.92	37	37	40	23	20	23	11½	12
Peaches.....	7.80	6.58	7.80	7.80	37	28½	34	20	16	23	11½	09
Grapes.....	5.00	4.98	6.00	5.70	25½	28½	31	17				
Fruit Salad..	9.00	9.14	10. 0	10.88	40	40		28½	25½	31	17	14

Table 56 is representative of the price variations in a small territory. The prices given are in most cases averages of prices at several different stores in each city. They well illustrate the variations in the marketing system, and the lack of standardization in prices.

The relatively new 8-ounce can of fruit is more prominent in British Malaya than in any other section of the Far East. In Kuala Lumpur, which serves as a distributing point for the rubber plantations, the demand for this new size was unexpectedly large. This demand should not, however, be confused with the question, so frequently discussed in this report, of the possibility of popularizing this small size among the native population. The demand for the small can has been almost exclusively from Europeans.

Canned fruit is usually ordered on the indent system by wholesalers through local agents of California firms. As is common throughout most of the Far East, these firms are agents for a wide variety of products among which are canned fruits. A few firms, acting as agents, carry small stocks on hand which they sell on their own account

to wholesalers at "ex-godown" prices. By far the greater volume of American canned fruit comes to Malaya on indent orders at c.i.f. prices.

Freight rates from California points average \$16 per ton of 40 cubic feet. Interest on drafts ranges from 2 to 6 per cent. Bank charges on exchange are $\frac{1}{8}$ to $\frac{1}{4}$ per cent. Delivery charges from the ship to the warehouse average $8\frac{1}{2}$ cents a case. Harbor dues are about $5\frac{1}{2}$ cents a package. Delivery charges to stores average $5\frac{1}{2}$ cents a case. Evidently, at the prices prevalent in December 1929, there is little profit in American canned fruits either to the wholesaler or to the retailer.

The primary difficulty with the expansion of the canned-fruit market in British Malaya is that any large expansion must be made through Chinese and to a lesser degree, through native consumers who are not particularly fond of canned fruit. The diet of the Chinese and of the natives makes them unappreciative of sweet canned fruits. At a conference of native dealers and wholesalers at Singapore, canned peaches were served. Although every Chinese present politely accepted and tasted the half peach offered, it was notable that not one of them consumed the small serving. Such a result never occurred elsewhere in the experience of the investigators. This merely substantiated statements made by many other sources. Had the peaches been iced and the syrup diluted with the resultant ice water, the peaches would probably have been eaten, though without enthusiasm.

Canned fruit, to the taste of the Chinese in British Malaya, is not a delicacy but rather one of many foodstuffs to be compared in price and in quality with the cheap native fresh fruit or with imported fresh fruits. In general, fresh fruits, whether native or imported, are preferred at an equal price. The expansion of the market for American canned fruits among the Asiatic population is therefore a matter of competition with cheap fresh fruits. In China this is not the case. Canned fruits, particularly if well-sweetened, are regarded as a luxury far superior to fresh fruits from any source whatsoever. Malaya has a different taste.

Canned grapes in the 8-ounce can could probably be easily promoted among a large number of the Chinese in Malaya. Grapes are already well known to the Chinese and, although their characteristic use is for dinners and banquets, this use could probably be extended. Other American fruits, such as peaches and pears, would find more difficulty. At present prices they cannot be extensively popularized.

The common coin of the country is the 10-cent piece. This has a value only slightly higher than 5 cents in American currency. If 8-ounce cans of peaches and pears could be sold for 10 cents in local money and could be promoted by all the usual forms of trade introduction, they would probably come into popular favor as a relatively cheap food. If these small cans became fashionable and generally well known, the price might be gradually increased. Only on such a basis would canned American fruits other than grapes, be largely used in Malaya among the Asiatics.

The market for American canned fruits among Europeans has not been saturated. Most families are small. The large can has been generally unsuitable to their use. However, the increasing volume of fresh fruits coming into this market throughout the year makes it improbable that the consumption of canned fruit will increase among Europeans. Unless advertising and other forms of trade promotion are conducted, the canned fruit market in Malaya is likely to decline rather than increase.

Dried Fruits.—With the exception of raisins and prunes, American dried fruits have small sale in British Malaya. The European trade consumes limited amounts of all dried fruits but the consumption is unimportant.

Raisins are not sold in such abundance here as in most other countries of the Far East. They are extensively offered for sale but are not as much in evidence as in China. It may be that raisins do not here appeal to the taste so strongly as in cooler regions. It is also apparent that less trade promotion has been conducted for them. The consumption of raisins in British Malaya reached its high point in 1926, since which time it has steadily declined. High rubber prices were coincident with the largest sale of raisins. Not all the decline may be due to the lower financial condition of the country. Raisins are perhaps less popular than formerly.

The largest sales of raisins are in the little 1¾-ounce packages which here retail for about 3 cents. About 60 per cent of the raisins imported are sold in this size container. Raisins packed in 15-ounce cartons make up about 30 per cent of the sales, while bulk raisins in 25-pound tin-lined cases constitute the remaining 10 per cent. Difficulty is experienced in the damp climate of Malaya with discoloring of raisin cartons once the case is opened. Wrapping cartons in transparent water-proof paper would assist sales if a cheap method could be used. A large part of the American raisins imported into Malaya are trans-shipped from China, where the Sun-Maid Raisin Growers

Association carries large stocks on hand and there packs bulk raisins in cartons. The export figures from America to Singapore are therefore not a correct indication of the total volume of sales, which probably aggregate about 15,000 cases a year in British Malaya.

Raisins are used for eating dry out of hand, for the baking of cakes, and are prescribed by Chinese physicians when administering bitter medicines. The concoctions of the Chinese herb doctors are made less nauseating by the pleasant flavor of the California raisin.

Prunes rank second in volume among California dried fruits. They are not only consumed by Europeans but have also become known among the higher class Chinese for their laxative qualities. Among the better-educated families, prunes are fed to babies and young children. In such cases they are usually cooked. Chinese physicians frequently recommend to their patients the eating of dry prunes. These various uses, largely medicinal, have helped to increase the sales of prunes beyond that of other dried fruits. However, the consumption of prunes has not yet become general among the Chinese. Many Chinese stated that, if prunes were better known, most Chinese would prefer the taste of the prune to that of the raisin. The prune seems less sweet to them and corresponds closer to their usual preference in this climate.

To some small degree, prunes have been sold one by one as a confection. The small retail stands in Singapore display prunes at the price of one prune for one local cent, about equal to a half-cent in American currency. If prunes of good quality could be retailed two for a local cent they might have large sale. There would be no market for small-sized prunes in competition with the many kinds of Chinese dried fruits and "kana" displayed beside them at low prices. Prunes sold as a confection in Malaya should not be smaller than the 50-60 size.

Apples rank third in popularity among dried fruits, but their consumption is limited to the European population and is said to be decreasing in face of the rising tide of fresh apples that are in the market during the entire year. Apples, apricots, peaches, and pears discolor in the hot climate of Malaya, even in unopened tin containers. Dealers are therefore fearful to stock these in large quantities lest they incur a loss. All these fruits have only a small sale which does not extend to the Asiatics.

Raisins retail in 1-pound tins at 22 cents a pound, in 15-ounce cartons at 14 cents, and in bulk at 14 cents a pound. Prunes retail in 1-pound tins from 13 to 20 cents a pound. Peaches in tins are 34 to 36 cents a pound and are sold in bulk at the same prices.

Apples were 31 cents a pound in tins and 40 cents in bulk. White figs in tins were 38 cents a pound. Apricots in bulk were 51 cents a pound. Prices of dried fruits are frequently higher in bulk than in cartons because of the risk taken by the retailer who buys a 25-pound case and fears spoilage before all the goods are sold. Despite the fact that bulk dried fruit is usually displayed in large glass jars, similar to those used for candy in America, it was noticeable that the fruit within the jars was frequently spoiled by souring, moulding or by insects. The 1-pound tin is evidently an economical method of retailing dried fruits to the European trade so long as consumption is too small for the retailer to dispose of a 25-pound case before the contents become unsalable.

Dried fruits are usually ordered on the indent system. Freight rates on dried fruit from California points to Singapore are \$16 per ton of 40 cubic feet. Other charges are about the same as those previously given for canned fruits.

British Malaya is not a large dried-fruit market except as raisins and prunes may be popularized as a confection; in that field they must compete with the numerous confections and condiments already on sale. Time, effort, and money expended on introducing prunes to the Chinese population as a medicinal fruit might bring large results if such trade promotion were skillfully done. Here, as elsewhere, the Chinese are avid for medicinal foods and preparations. The prune and raisin offer the brightest opportunities in British Malaya for any large increases in sales of California fruits.

Trade Promotion Methods.—At present writing, the low financial condition of the country, due to the decreasing prices of rubber and tin, does not make this an opportune time to introduce new products to the masses of the population. Despite that fact, trade and commerce go on in large volume. People continue to eat and to spend money for luxuries. The financial depression of Malaya merely means that the number to whom a successful appeal might be made is not so large as in times of higher prices.

Up to the present, the sales of American canned fruits have been confined to Europeans and to a few comparatively wealthy Chinese. Sales promotion has been largely confined to the scramble for this trade. Increased sales of one brand merely meant decreased sales of another. The net result did not go far to enlarge the consumption of American fruits. Little attempt has been made to widen the markets among new classes of buyers. Indeed, the various firms handling California fruits voiced their disappointment at the present situation

in the canned-fruit business of Malaya. Competition among agents is so keen that the Chinese wholesalers have been able to force competitive bidding and to obtain goods at lower prices than the agents found satisfactory. In turn, the agents had all the troubles and financial difficulties attendant upon the business. However, none of them seemed anxious to resign their agencies. With the exception of grapes, the introduction of American canned fruits to the general Chinese population has not been attempted. All evidence that the Chinese would not purchase canned fruit except at very low prices is entirely a matter of opinion. Nevertheless, the opinion seems to be well-founded. It is not probable that canned fruits will here find a greatly increased market unless prices become markedly reduced below the present levels. In that event, the small 8-ounce can would offer a bright prospect for trade promotion among the middle classes.

Dried fruit, both raisins and prunes, might have greatly expanded sales in British Malaya if a campaign of education and promotion were skillfully waged in the vernacular newspapers. Such a campaign should include the employment of salesmen to push sales with retailers in the name of and for the Chinese wholesalers. It should include the use of free samples. Coffee houses should be supplied for a time with free samples for distribution to customers—one prune with a cup of coffee. Later these coffee houses could be charged a low price for the prunes. This price could be gradually increased as the product became better appreciated. Coffee houses now sell a cup of coffee with a small cake for 5 cents in local currency. They also supply a cigarette and a match for an additional cent. For another cent (a half-cent in United States coinage) they might supply a prune. More than any other method, this form of distribution would make the fruit known among the population who have purchasing power.

Advertising for prunes should emphasize their medicinal value. The greatest appeal can be made to this population for products which give increased health and strength. Prunes sold on the street should retail in envelopes containing one or two prunes. These envelopes should bear a definite 'chop' or brand and should extol in Chinese characters the health value of the product. Prunes in tins of 1, 2, and 5 pounds sold to retailers should be accompanied with enough envelopes to enable them to sell the fruit in small quantities, the brand and the health recommendation thus accompanying each purchase. A printed container, even a small envelope, that goes into the home is the cheapest and most effective form of advertising.

Fresh fruits require no advertising in British Malaya. The problem is to move a sufficient quantity into distribution. Unfortunately, imported fruits are beyond the purchase of all except the well-to-do classes in the large towns. Even the Europeans on distant rubber plantations are beyond the range of purchase of many imported fruits. Only fresh fruits with the best keeping qualities, such as apples and oranges, can be successfully transported to these outlying communities. On the plantations the number of foreigners is small and the demand, therefore, precarious. As the number of shops installing electric refrigerators increase, the wider distribution of fresh fruits will become feasible.

For the clerical class, American fresh fruits are a possibility only when a glut in the market brings these fruits within their range of purchase. The middle classes are quite satisfied with the native fruit and feel no longing for American peaches, pears, and apples. A durian is to them more desirable than all the fruits of America. Imported fresh fruits, to the native trade, are a novelty which they are willing to purchase only when the price is low. The only exception to this is grapes. Fresh grapes are understood to be more desirable for banquets and dinners than canned. Freshly iced, they are in demand among the better classes for feasts and festivals. Those to whom they are within the range of purchase are a limited group whose numbers can be expanded when and if means are found to put fresh grapes in Malaya at low prices.

British Malaya is a price market. Low prices would make the sale of American fruits possible in larger amounts. Raisins, prunes, canned fruits in small containers and fresh fruit can be increased if and when they can be retailed at lower levels than hitherto prevalent.

TABLE 57

DIRECT FRUIT EXPORTS FROM CALIFORNIA TO JAVA AND MADURA

Kind of fruit	1927		1928		1929	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
<i>Canned</i>						
Berries.....	6,904	1,335	7,720	1,464	11,646	2,135
Apples.....	54,331	7,797	36,504	4,495	39,149	4,999
Apricots.....	95,954	12,018	131,509	17,274	176,526	21,708
Cherries.....	124,230	20,159	144,045	21,961	184,786	31,261
Prunes.....	97,463	8,959	13,954	1,413	27,618	3,243
Peaches.....	122,506	11,932	166,922	16,012	239,406	26,584
Pears.....	114,460	14,703	139,518	17,017	225,601	30,440
Fruit for salad.....					163,185	26,584
Other canned.....	336,122	33,231	716,559	73,945	802,168	87,094
Pineapples.....	17,437	2,245	12,099	1,608	18,431	2,751
Jams, jellies, etc.....	81,921	15,165	120,020	19,221	14,414	4,162
Total.....	1,051,328	127,544	1,488,850	174,410	1,902,930	240,961
<i>Dried</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Raisins.....	7,702	678	13,287	1,213	56,525	4,626
Apples.....	52,070	7,998	85,723	12,682	137,801	21,650
Apricots.....	17,418	2,859	20,514	3,061	22,383	5,207
Peaches.....	462	55	1,308	127	1,614	279
Prunes.....	59,853	6,392	199,448	19,698	191,000	21,222
Pears.....					2,992	559
Other dried.....	3,455	676	4,105	694	2,310	434
Total.....	140,960	18,658	324,385	37,475	414,625	53,977
<i>Fresh</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>
Grapefruit.....	37	168	80	443	110	545
Lemons.....	21	144	3	21	1	6
Oranges.....	394	2,569	468	3,043	1,081	5,622
Apples.....	6,657	14,094	11,836	18,705	19,566	41,864
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Grapes.....	92,270	6,802	148,430	10,207	226,192	20,951
Pears.....	10,575	766	16,375	657	61,570	5,485
Peaches.....			1,915	150	1,500	150
Other fresh.....	410	27	9,690	752	14,686	1,927

TABLE 58

DIRECT FRUIT EXPORTS FROM CALIFORNIA TO OTHER NETHERLAND EAST INDIES

Kind of fruit	1927		1928		1929	
<i>Canned</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Berries.....	3,039	544	4,929	989	8,066	1,151
Apples.....	29,201	3,354	18,717	2,170	29,464	3,592
Apricots.....	51,210	6,091	61,032	6,876	67,775	9,914
Cherries.....	63,701	10,812	66,070	9,797	91,041	14,745
Prunes.....	20,512	2,133	1,968	244	5,963	725
Peaches.....	55,349	5,480	94,434	8,654	104,572	11,798
Pears.....	56,852	7,022	72,307	8,937	102,398	14,069
Fruit for salad.....					72,884	11,986
Other canned.....	431,895	43,196	567,655	53,539	494,590	48,573
Pineapples.....	5,034	560	4,401	532	3,646	474
Jams, jellies, etc.....	32,956	5,911	53,579	7,800	7,124	1,772
Total.....	749,749	85,103	945,092	99,538	987,523	118,799
<i>Dried</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Raisins.....	7,201	748	17,926	1,644	12,502	1,234
Apples.....	18,985	2,851	23,286	3,441	28,220	4,401
Apricots.....	3,440	505	3,682	516	5,067	1,060
Peaches.....	132	18	204	32	252	28
Prunes.....	17,262	1,751	57,054	5,667	60,517	6,568
Pears.....					72	10
Other dried.....	1,496	249	690	79	394	83
Total.....	48,516	6,122	102,842	11,379	107,024	13,393
<i>Fresh</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>
Grapefruit.....	5	25	7	25	27	97
Lemons.....			40	240	36	199
Oranges.....	30	193	7	35	124	655
Apples.....	450	960	1,130	1,765	76	158
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Grapes.....	18,432	1,220	6,000	300	6,596	878
Pears.....	800	80	160	12	500	20
Peaches.....			1,450	75		
Other fresh.....			3,900	220	40	6

FRUIT MARKETS IN THE NETHERLAND EAST INDIES

The eastern empire of Holland, known as the Netherland East Indies, is a series of great and small islands lying near the equator south of eastern Asia and north of Australia. It is these islands that divide the Pacific and Indian oceans. From east to west they extend over 46° of equatorial longitude, in an area greater than that of the entire United States. Most Americans are only familiar with these islands through small-scale world maps. From such maps little conception is gained of the great distances covered by the Dutch possessions. Among the most important of these are Java, Sumatra, Dutch Borneo, Celebes, Dutch Timor, Dutch New Guinea, and the Maluccas. In this study, the investigators visited Java and Sumatra, which commercially are the most important islands of the group.

Java, though not the largest, is because of its dense population, the chief province of the Netherland East Indies. Under the last 150 years of Dutch sovereignty there has been a great increase in population. Centuries of peace, sanitation, and industry have caused the population to multiply many-fold. From this increase large problems have resulted. In an area of 50,800 square miles are crowded 37,433,000 persons, or about 750 per square mile, making this island one of the most thickly settled regions of the globe. Efforts of the Dutch government to induce the Javanese to migrate to other islands have not achieved much success. Java, together with the small neighboring island of Madura, is one of the two major divisions of the Netherland East Indies. All other possessions are grouped as 'outlying provinces.' Government statistics are accumulated for the two divisions.

The outlying provinces have far greater areas but much smaller populations than Java. Sumatra is more than twice as large. With 127,602 square miles, its population is 4,629,000. Borneo has 212,727 square miles, and about 2,000,000 population. The Celebes area is 71,470 square miles; its population is 2,352,048. New Guinea, with an area of 151,789 square miles, of which about two-thirds belongs to Holland, has only about 200,000 people. Scattered among the other islands are about 4,700,000 persons.

The Netherland East Indies thus have a total population of over 50,000,000, the great majority of whom are natives. These are mostly Indonesians, a branch of the Malay race. The native population num-

bers 34,433,000 in Java and 13,871,000 in the outlying provinces. Thus, out of a population of perhaps 50,000,000, over 48,304,000 are of the native races. The second largest, but far smaller, group are 'foreign Asiatics.' Of these there are 445,000 in Java and 431,000 in the outlying provinces. Of the 'foreign Asiatics,' numbering 876,000, about 92 per cent are Chinese. The remaining 8 per cent are Arabs and natives of India. The Europeans number 135,000 in Java and 34,000 in the outer provinces. These 169,000 persons constitute the ruling class. Over 90 per cent of the Europeans are Dutch. The last census found only 266 resident Americans in all the Dutch possessions.

If, therefore, one is to obtain a quick picture of the population of the Dutch East Indies, he must imagine an island 700 miles long, swarming with natives. In the crowd are a few Chinese and an occasional Hollander. Out from this island are other larger islands, sparsely populated. In the whole zone among any three hundred people, five might be Chinese and one a European. All of the remainder would be natives. The Europeans rule in government and in commerce. The Chinese distribute products from the importer to the retailer and own and operate the important shops. The natives till the land in tiny patches of their own and work in gangs on plantations owned and managed by Europeans.

The Netherland East Indies have, of recent years, been a rich possession. In normal times the exports have been double that of the imports, so that the islands have had an exceedingly favorable trade balance. Since, however, much of the accumulating wealth passes on to Holland and other European countries where stockholders of the great estates and commercial companies reside, not a great share of the earnings of the island remains in them. Very little falls into the hands of the native.

The exports are normally about equally divided between Java and the outlying provinces. Rubber makes up the greatest single value of export; sugar ranks second, oil third, tobacco fourth, and tea fifth. Most of the rubber comes from Sumatra and Borneo, the sugar from Java, the oil from Borneo, and the tea from Java. Other important exports are coffee, tin, pepper, and spices.

Imports come more heavily to Java than elsewhere. The largest single imported group of articles is textiles, most of which is cotton piece-goods for native clothing. The second largest item is rice. Despite the enormous areas in Java given to that cereal, the islands are not self-sustaining.

Unfortunately, the Netherland East Indies are not as prosperous as formerly, due to the low price level of many important exports. This coupled with the poor condition of the rice crop in 1928 has lessened the buying power of the Islands. Table 59, showing a few of the agricultural exports, illustrates the situation.

TABLE 59

CERTAIN EXPORTS, NETHERLAND EAST INDIES, 1928-1929

	1928	1929
Sugar	\$149,006,444	\$121,706,207
Rubber	110,108,125	92,551,638
Tea	39,284,038	34,434,371
Coffee	32,545,406	27,617,576
Tapioca	13,512,958	8,419,254
Total	\$344,456,971	\$284,729,046

In 1928 the imports of rice were \$3,600,000. In 1929 they were about \$10,000,000. Thus, the native population, the vast majority of whom are always on a narrow margin between maintenance and poverty, have become poorer and consequently more restless. The natives are indolent and extravagant. If there is money in hand it is easily spent. If there is no money they attempt to borrow. In order to loosen the clutches of the Indian money lenders, the Dutch government operates pawn shops which dot all important towns. Crowds may be seen daily at the windows of these shops pledging, or perhaps redeeming, articles of small value.

The Netherland East Indies maintains an excellent Bureau of Statistics. From its publications the only measured estimate of the buying power of an Eastern people may be glimpsed.

The government imposes a tax on all those with an income of over \$48 a year, except those who pay a 'land rent.' Of these latter there are about 6,000,000 in Java. The assessment of incomes under \$480 a year is not left to the individual. It is fixed by a local committee who know the person and his economic status. The result of the income tax of 1925 has been studied by the Bureau of Statistics. Out of the total population of 50,000,000 there were 3,651,748 persons assessed. Of these 3,178,166 were natives, 394,971 were foreign Asiatics, mostly Chinese, and 78,611 were Europeans. Over 87 per cent of the natives had an income of less than \$160 a year and 99 per cent an income of less than \$480 a year (see figure 18). Of the foreign Asiatics, mostly Chinese, about 39 per cent had an income of less than \$160 a year and 90 per cent less than \$480 a year. Of the Europeans, over 63 per

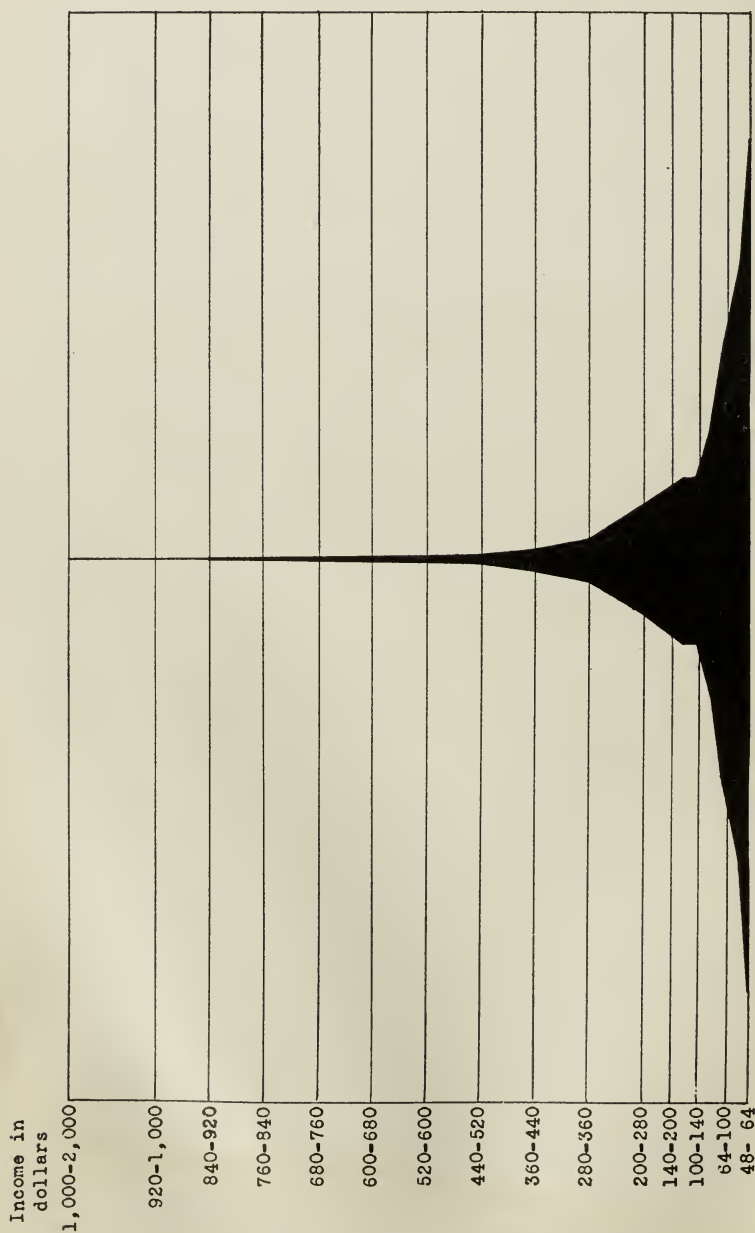


Fig. 18.—The Economic Structure of an Eastern Society. The annual incomes of over 3,000,000 natives of the Netherlands East Indies who paid an income tax in 1925. Note the very large number of small incomes and the few large incomes. Reproduced from Bulletin 69 of the Central Bureau of Statistics, government of the Netherlands East Indies.

cent had less than \$2,000 a year.* The publication of the Bureau further states that "It should be borne in mind that the land-renters do not come into consideration. In the event of their number being taken into consideration the concentration (in the lower brackets) would certainly appear considerably higher." Furthermore, only those were assessed whose incomes were \$48 a year or more. Since only a little more than three million assessments were made it is evident that most of the population were believed by the local committees to have an income below that amount.



Rice is the staple food of Java. Here, on a native plantation, rice is threshed in a large basket.

The same bureau has made a study of the cost of living of the native population.† Presumably this concerned the necessities of life only, since no luxuries are scheduled. They found the average expenditure was 5.2 cents per day per person, of which over 82 per cent was for food, almost 6 per cent for kerosene oil, 9 per cent for clothing, 1.8 per cent for transportation and, finally, nine-tenths of one per cent for matches. The fact that the last item was scheduled is sufficient commentary on the general scale of living. Of the 82 per cent required for food, almost one-half was for rice.

Wages of natives on plantations range from 15 cents to 20 cents a day. However, the day's labor lasts only from 6 to 11 a. m. After these hours they return to their homes to rest, to sleep, or to cultivate

* Bulletin 69, Central Bureau of Statistics, N.E.I. 1929.

† Bulletin 31, Central Bureau of Statistics, N.E.I. 1926.

their own patches of ground. It is not usual for natives to be employed continuously. They work only when they require money and if there is work available. In cities, wages are higher. For skilled occupations they are often from 40 to 80 cents a day. In such occupations workers are expected to labor for 10 to 12 hours with a rest during the heat of the day.

In Sumatra much of the labor is indentured. It is recruited in Java under government control for a contract of three years. Javanese, Chinese, and natives of India are thus secured as contract laborers. Wages are fixed by government and vary from 16 to 20 cents a day, together with housing, medical attendance, and a certain amount of rice. For violations of the contract to labor, jail sentences are imposed. Because laborers in Sumatra and certain other islands are employed the year round, they have more actual money than the natives in Java where part of the subsistence comes from their own patches of ground and part from employment.

Any commodity that is to sell to the millions must be bought by natives. It must obviously be a very low-priced article salable in small units for a few cents. If it is higher in price it can only be offered to the hundreds of thousands, not to the millions, which means it can appeal only to the Chinese and Europeans. High-priced articles can only be offered to Europeans and a few rich Chinese. In 1925 there were less than 5,000 'foreign Asiatics' with incomes over \$2,000 a year. Salaries of most Europeans are low. Holland is a crowded country. Many young Dutchmen are glad to come to the East Indies for wages that a similarly placed American would scorn. Almost two-thirds of the Hollanders in Java receive less than \$2,000 a year. Furthermore, the Hollander is a frugal person. The Dutch housewife regards a 40-cent can of American fruits as an extravagance only to be indulged on special occasions.

Bliss* estimates that at the utmost there are not more than 11,000,000 natives and 1,000,000 Europeans and 'foreign Asiatics' who are a potential market for American foodstuffs and that of these "the vast majority can afford to buy only minute quantities of imported foodstuffs and only the cheapest varieties of them."

On the other hand, it must be remembered that the native is an extravagant person. He buys what he wants if he has the money or can command it. He may spend his last 5 cents for an entrance fee to a movie show if that happens to be his momentary desire. Most

* Market for Foodstuffs in the Netherland East Indies. Trade Information Bulletin 620, D. C. Bliss. 1929.

purveyors of low-priced commodities are occupied in trying to "make the native want it" rather than worrying how the native is to get the power to purchase. The native has a way of finding the money for what he wants in a larger number of instances than a study of his income would lead one to suppose.

The Netherland East Indies have an equatorial climate. There is little change of temperature. The seasons are marked only by the so-called wet and dry seasons and the changes in the monsoon. Most of the islands are mountainous. Europeans seek surcease from the heat at stations in the higher altitudes where cool nights temper the tropical heat of equatorial lands. Imported fruits coming into the East Indies must meet the attack of dampness and heat before they reach the consumer. Furthermore, they must meet the test of appetites jaded by a hot climate in a country where tropical fruits abound.

Fruit in the Diet of the Netherland East Indies.—Throughout the thickly settled portions of the Dutch possessions, rice is the staff of life. However, large amounts of other foodstuffs are used and the diet here is perhaps more varied than elsewhere in the East.

The native starts his day before dawn. Normally a cup of coffee is the only early meal. This is frequently bought from coffee stands, thousands of which dot the towns and villages. If a heavy meal is eaten before the day's work begins it is because the native has more money than usual. By ten-thirty to eleven the whole populace is eating its first general meal of the day. Usually this too is bought from an itinerant or roadside restaurant. By four or five in the afternoon the last meal of the day is eaten. This may be bought at a restaurant but, if any cooking is done at home, it is likely to be in connection with this afternoon meal. In many cases, only the rice is cooked at home, the additional foodstuffs being bought from itinerant vendors.

Meals are irregular. A native may eat early and often if he has the money. He may be reduced to one meal a day in times of hardship. Normally, rice forms the basis for each meal. Large amounts of Indian corn are grown and consumed and, because this is cheaper than rice, may take the place of that cereal when rice is high or the people poor. When still further reduced the cassava, sometimes called the tapioca, is used. This is not processed, as is done when it is manufactured for European trade under the name of pearl or flake tapioca, but the entire root, which resembles a sweet potato or yam, is cooked. The Dutch government has made efforts to popularize the cassava among the native people in order to reduce the imports of rice into the country.

Rice furnishes only the primary basis for the meal. Various vegetables are cooked in considerable water and the ensuing soup is poured over the rice. Very young ears of corn are sometimes used for this purpose, the entire ear, including the cob, being ground or sliced for the purpose. Over the rice and vegetables, small amounts of dried or fresh fish are sprinkled. It is for this usage that the California sardine has become popular in places where fresh fish is scarce or expensive. Their low price places these sardines within the range of purchase of many natives because only small amounts of them are used.



In Java, many meals are bought in cooked form from itinerant vendors. If meals are cooked at home, primitive utensils are used over a fireplace in the open.

Sardines for native consumption are usually sold in quantities of one-half or one-fourth of a sardine.

From native vendors and traveling restaurants a large number of fried and cooked foods are available. These are decidedly in the luxury class, as is also the sweetened bread, made from imported flour. These cooked foodstuffs look far from unappetizing. Small crisp cakes, about 4 inches in diameter, are cooked in deep fat at the itinerant restaurants. As the batter hardens peanuts, shredded cocoanut, shrimps, or chopped meat are sprinkled over them. These cakes, cut into small pieces with a pair of scissors, are added to the rice. Finally, hot sauces are poured over the dish and the native thus at a cost of perhaps two and a half American cents finds himself with a large bowl of rice, the entire top of which is covered with native foods of various kinds.

If funds are available there is a vast amount of eating between meals. Coffee shops abound. In Java these are usually mere roadside stands where for a few local cents a cup of coffee and a small cake can be had. In Sumatra they are usually more ambitious. There the coffee shop is a sort of club where for 5 local cents (2 cents American money) a cup of coffee and a cake may be eaten in comparative comfort and with even the added joy of a phonograph. For another local cent a cigarette and a match may be bought. In such coffee houses in Sumatra, people are seated for hours at a time.

In addition to the liking for coffee, immense quantities of fresh fruits are consumed between meals. Millions of natives in Java own their own patches of ground on which are always a variety of fruits. To be sure, these fruits may not necessarily be harvested by the owner. Sometimes a neighbor gets them first. Within the cities and among the contract laborers of Sumatra, fruit must of course be purchased. Fruit vendors with large baskets go from house to house or squat by the roadside in native sections of the city selling various varieties of fruits in season. Even unripe fruits are eaten. For example, green mangoes are sliced and over them is poured ketchup or a hot Spanish sauce—the hotter the better. The consumption of fruits, however, is entirely between meals.

Sweets are eaten between meals and a very cheap grade of European candies is in demand. Native candies are largely based on the cocoanut, which in shredded form is frequently rolled up in a sort of candy. Iced fruit-flavored drinks are popular. A small amount of actual or synthetic fruit juice is added to a glass of ice water. These same highly colored fruit syrups are also served with shaved ice. Probably, however, the sales of fresh native fruits outweigh all of the other between-meal refreshments except coffee. Native fruit is so abundant and so well liked by the population that the consumption is enormous.

The natives show no tendency to turn to European foods except for sweets and for bread. Even the half-castes are likely to revert to native food rather than European. The taste for the varied condiments in the East Indian diet seems to be inherent to the climate. Europeans show a frequent desire for native food. The famous rice-taffel of Java is a dish of rice over which many foodstuffs used by natives are poured. The fact that in a modern hotel fifteen or twenty servants are assigned to serve this dish with all the pomp and ceremony attendant upon the life of the European in the Far east, in no wise affects the central fact that the Hollander eating his beloved rice-

taffel from a large soup plate is in fact eating the native meal served in somewhat native fashion. Just as the native finds that sweets have no place in such a meal, so the European eats the one dish as an entire luncheon, and waives the customary dessert until such time as he is partaking of typical European food.

TABLE 60
NATIVE FRESH FRUITS, NETHERLAND EAST INDIES

	Seasons	Average prices at retail
Banana.....	All year.....	$\frac{1}{2}$ c to 1c each
Cherimei.....	All year.....	20 for 1c
Cocoanut.....	All year.....	4c to 15c each
Cheico.....	All year.....	$\frac{1}{2}$ c each
Djambol.....	All year.....	4c per quart
Jack Fruit.....	All year.....	20c each or $\frac{1}{2}$ c per slice
Lime.....	All year.....	$\frac{1}{2}$ c each
Lubilubi.....	All year.....	$\frac{1}{2}$ c each
Orange.....	All year.....	2 $\frac{1}{2}$ c each
Pala.....	All year.....	1c each
Pineapple.....	All year.....	2c to 4c each
Peaya.....	All year.....	1 $\frac{1}{2}$ c to 8c each
Salak.....	All year.....	1c each
Sirsak.....	All year.....	2c to 4c each
Sirakaya.....	Jan.-Feb.....	1 $\frac{1}{4}$ c each
Buanona.....	Jan.-Feb.....	1 $\frac{1}{4}$ c each
Maja.....	Jan.-March.....	1c each
Mandelika.....	Jan.-March.....	1 $\frac{1}{2}$ c each
Buaatap.....	Jan.-March.....	6 for 1c
Blingbing.....	June-Sept.....	1 $\frac{1}{4}$ c each
Jamblang.....	Sept.-Oct.....	1c per dozen
Buni.....	Sept.-Oct.....	1c per hundred
Mango.....	Sept.-Jan.....	4c to 10c each
Samaka.....	Sept.-Dec.....	40c each
Durian.....	Nov.-Jan.....	16c each
Kemang.....	Nov.-March.....	10 for 8c
Chempedak.....	Nov.-Feb.....	8c each
Kachapi.....	Dec.-Jan.....	10 for 2c
Gandaria.....	Dec.-Jan.....	10 for 4c
Gohok.....	Dec.-Jan.....	10 for 1c
Kokosan.....	Dec.-Feb.....	10 for 1c
Mangosteen.....	Dec.-Feb.....	7c per dozen
Menteng.....	Dec.-Feb.....	1 $\frac{1}{2}$ c per hundred

Fresh Fruits.—Except in the mountain section, the climate is excessively warm throughout the entire twelve months of the year. Fruit as a refreshment between meals is therefore a commodity in demand at all seasons. Native fruit is abundant and cheap.

Throughout Java and Sumatra the government has built public markets where natives by payment of a small entrance fee, set up

stands with goods for sale. These markets offer great quantities of local fruits in numerous varieties. The larger fruits may be bought by the slice or segment. Smaller fruits may be purchased by the piece or by the dozen. Europeans as well as natives patronize these markets where they buy fruits at low prices. Table 60 gives a list of thirty-three of the more prominent native fruits together with their seasons and representative retail prices.

Imported fresh fruit comes to the Netherland East Indies from Japan, China, Australia, Palestine, and America. Smaller amounts



In the Netherland East Indies an abundance of native fruits are on sale in the local markets.

come from Spain and Holland. Because the Dutch islands stand almost on the equator and half-way between the Mediterranean and America, they draw supplies from both the northern and southern hemispheres and from East and West.

Australia, being relatively close to Java and Sumatra, is able to ship apples and other hardy fruits from its west coast as deck cargo on short voyages of six or seven days at low rates. Fruit received from the east coast of Australia is shipped as refrigerated freight at rates lower than those from America.

Originally Australian fruit was not well-graded and was discriminated against in the market. More recently, the grading and quality have improved so that Australian fruit, particularly apples, has the largest demand in the islands.

From Japan and from Shantung province in China come apples and pears. The market for these is increasing. From the port of Jaffa in Palestine come oranges which are of good quality and which meet a ready demand. Holland sends small amounts of fresh fruit but, due to the long voyage from the mother country, the prices are high and the sales small.

Imported fresh fruit is consumed primarily by the European population, to a lesser degree by the Chinese, and in only small amounts by the natives. It is the consumption of imported fruit by the Dutch that makes this a fresh-fruit market worthy of attention. The native consumption of imported fresh fruits is small, not because certain imported fruits such as apples and grapes are not liked but because they are beyond the buying power of the people. The amount of imported fresh fruit consumed by natives was estimated by various importers at from 1 per cent to 20 per cent of that imported. It is not surprising that estimates varied widely because the native consumption changes with the state of the local fruit crop and the price of the imported commodity. If local fruit is relatively scarce and more expensive than usual, and if imported fruits are abundant and therefore comparatively cheap, larger amounts may be sold to natives. Generally, however, the native only buys imported fruit when there is a glut in the market so that prices drop to low levels or when fruit spoils so that spotted apples or oranges are thrown to the native trade in the hope of recovering part of their cost.

Imported fresh fruit is landed at Surabaya and Batavia in Java and at Medan in Sumatra where there are cold storage facilities. Of these three cities, Surabaya is the largest market, particularly for apples. From these ports, some imported fresh fruit is shipped to towns in the interior. There are no refrigerator cars on the Javanese railways, and no large towns near Medan in Sumatra. Small amounts of fruit are sometimes shipped to Borneo and the Celebes but this is not common. The fresh-fruit market of the Netherland East Indies is confined at present to three port cities and to those interior towns in which the demand is sufficiently great to warrant the speculation of shipment without refrigeration.

Normally, fresh fruit is brought into the East Indies by an importer on the basis of advance orders from Chinese wholesalers. These wholesalers sell the fruit to dealers who in turn distribute to small Chinese shops. The entire distribution is therefore dependent on the interlocking system of Chinese merchants. Much of the fruit actually reaches the consumer through peddlers. A native peddler will buy a

box of apples and a keg of grapes and, with two baskets and a shoulder pole will retail them from house to house of the Europeans. The first purchasers having the pick of the supply, are charged the highest prices. As the day goes on and the choice lessens, the prices gradually lower till at night the last may be sold cheaply to natives to close out the day's sales, especially if the whole work of the day has already returned a small net profit. A native peddling fruit from one veranda to another in a European section of the city is a familiar sight in the warm tropic evenings.

The heaviest demand for any imported fruits is for apples. It seems to be the firmness and tartness of the apple that makes them an occasionally desired delicacy among Europeans. The native fruits are of different flavor and consistency. Perhaps, after all, Europeans like apples because they taste like home. Primarily the Dutch like a hard, firm fruit. Thus, a hard sour apple finds a ready market among the Hollanders. On the other hand, the Chinese prefer a sweet apple. If it is highly colored, so much the better. Apples wholesaled in Batavia and Surabaya in Java at \$3.25 to \$5.00 a box. At Medan in Sumatra they were about a dollar higher in price for the same quality. At retail in Java they sold at 21½ cents a pound and in Sumatra at 24 cents a pound. Meanwhile in Java apples from Australia and from Japan were selling at 20 cents a pound and from China at 24 cents a pound. Bliss states* that "from a standpoint of suitability there is little to choose between the Australian and United States apples," and that "the reason for the larger imports of Australian apples into Java is that Australian apples reach Java at a time when there is comparatively little native fruit on the market, whereas United States apples arrive during the heaviest marketing period for domestic fruit." However, that may be, Australia has the advantage of a short voyage and cheap transportation.

Grapes rank second in importance among fresh-fruit imports. While California grapes are consumed by Europeans, the great market for them is among the Chinese and to a smaller degree among natives. The Chinese not only like the flavor, but also seem to believe that they are 'strengthening.' Here, as in their native land, anything that makes for strength is eagerly sought. The usual sale to natives or to Chinese is in small amounts for 5 or 10 cents. Large bunches are cut apart into small clusters and retailed in amounts suited to the purchasing power of the consumer. In Java grapes wholesaled at

* Trade Information Bulletin 587—"Markets for Fresh Fruit in the Netherland East Indies." D. C. Bliss.

\$4.80 to \$6.00 per 32-pound keg. In Sumatra the price was \$6.50. At retail in December, 1929, they were selling in Surabaya at 36 cents a pound, at Batavia 40 cents and in Medan, Sumatra, at 44 cents. Australia regularly ships grapes into these markets but since the season is different from that for American grapes they do not directly compete. The grape market is essentially a luxury market. While natives, because of their extravagant habits, do purchase grapes occasionally, this consumption is both small and unreliable. A sudden influx of desirable native fruit or the advent of a new candy or a popular movie causes the native fresh-grape consumption to fall off or disappear. The Chinese consumption of grapes is, however, fairly steady and reliable but is distinctly limited. No great and sudden expansion can be made.

Oranges rank third in popularity among imported fruits. California oranges, 156 to 200 to the box, were selling at wholesale in Java at \$6.00 to \$8.00 a box. In Sumatra they were \$8.75. At retail in Java they were $6\frac{3}{4}$ cents each; in Sumatra 10 cents each. Meanwhile, fair-quality oranges from Australia were 6 cents each and mandarin oranges from China were 4 cents each. In Java a native orange, known as the 'Malang' orange, is of good quality. When this comes in season the market for imported oranges drops off because of the low price of the local product. Jaffa oranges packed 160 to 172 to the box cost \$3.60 f.o.b. Port Said. They come cheaply as deck cargo without refrigeration during the winter months but, as the season is short, only four shipments a year are received. As yet, therefore, they do not represent a serious competition. Oranges from California are the highest grade of any shipped to this market. The demand for them is steady during the year but increases during the Mohammedan New Year, a movable feast which constitutes the festival season of the country. During Ramadan when good Mohammedans do not eat from sunrise to sunset, the evening of each day is as much of a feast as the native can afford. During this period, the consumption of oranges is increased by a demand from the well-to-do natives.

Pears rank, perhaps, fourth in popularity but it is chiefly the hard pears from Japan and north China that are in demand. The American pear is too soft to appeal to the Chinese or native trade. It is only among a small group of Europeans that pears from the United States are purchased. California pears, 150 to the box, wholesaled in Surabaya at \$6.40 a box and in Batavia at \$6.80. In Surabaya they retailed at 36 cents a pound; in Batavia at 49 cents. At the same time large pears from China retailed at 24 cents a pound while small ones were only 12 cents.

Other fruits are only in small demand. A few American grapefruit are sold, but only when the native pomelo is not available. In December, 1929, they wholesaled at \$10 a box and retailed at 20 cents each. Apricots, peaches, and plums would have very small demand even if they were received in this market in good condition. The many native fruits successfully take the place of these in popular taste. A few cases could be sold but it would be as a novelty rather than as a market presenting any possibility of large development.

Two steamship lines carrying refrigeration space run from California points to the Dutch East Indies. Two other lines, without refrigeration, also ply between these ports. Refrigeration rates from California to Java ports are: for apples and pears \$1.10 a box; for oranges \$1.50 a box; for grapefruit \$1.55 a box; for lemons 90 cents a half-box and \$1.70 a box; for grapes \$25 a ton of 40 cubic feet; and for peaches \$32 a ton.

In addition to the freight charges there is at Batavia a landing charge of 6 cents a box and a truck and coolie charge from the port to the city amounting to 12 cents a box. Import duty is 12 per cent on the c.i.f. costs in addition to which there is an additional charge of $\frac{1}{4}$ of 1 per cent of the duty for the upkeep of the statistical department of the colonial government. There is also a charge of 14 cents a ton harbor dues, and 14 cents a case inspection costs.

At Medan in Sumatra the charges are even more complex because freight is usually trans-shipped at Singapore and because the city of Medan lies further inland from its port, Belawan-Deli. There is an $8\frac{1}{2}$ cent charge per package for refrigeration at Singapore while awaiting trans-shipment to Medan, and a 10-cent charge per package for cargo transfer. At Belawan-Deli discharging from the ship costs 80 cents a ton; harbor dues are 12 cents a ton; godown charges for the first four days are 2 cents; coolie transfer from warehouse to truck or train is 4 cents a case; truck or train transfer from the port to Medan is 5 cents a case. In addition to all of which is the 12 per cent duty, to which is added $\frac{1}{4}$ of 1 per cent to maintain the Statistical Bureau, and the 14 cents a case inspection charge.

Cold storage facilities are available at Batavia to the extent of about 6,000 cases in plants of two different firms. At Surabaya there is available space for about 5,000 cases where branches of the same firms are established. At Medan, in Sumatra, one company has three or four small rooms for fruits with space sufficient for perhaps 700 cases. At the port of Semarang there is no public refrigeration space at present available.

Because there are no refrigerator cars on the State Railways in Java, the distribution of fruit of a quickly perishable nature is relatively hazardous. The greatest interior distribution of fresh fruit is made from Surabaya. Probably fifteen small interior towns receive fresh imported fruit from this point through Chinese wholesalers who ship fruit up-country to dealers, who in turn distribute to stores, stands in public markets, and to peddlers. From Batavia only a few interior points are reached, chiefly the considerable cities of Bandoeng and Buitenzorg. From Medan in Sumatra there is little interior distribution. Four or five small up-country towns and a few large plantations occasionally receive imported fruit.

The fresh fruit market in the Netherland East Indies presents little opportunity for any marked expansion except as decreased prices in America or decreased freight rates may enable fruit to be landed at lower costs and thereby come within the purchasing desire of a larger number of people. As more cold storage plants are established in interior towns, and as improved distribution takes place, the consumption can be gradually increased. At present prices and with present facilities the market must remain comparatively small. The cheapness and abundance of native fruit throughout the entire year furnishes a substitute for the fruits of the temperate zone which is sufficiently satisfactory for most of the European trade. At the same price the Hollander would probably prefer apples, grapes, or oranges to mangoes, bananas, or mangosteens. At present prices the latter do well enough except for occasions when a novelty is desired or when the Hollander wishes to entertain his family or his friends. Apples, grapes, or oranges are understood to be a decided treat, not because of their rarity, but because of their cost. After all, even in America under the relatively high standard of living and of expenditures there prevalent, the consumption of these fruits would be small if they were displayed at the high prices necessarily asked in Java and at the same time were competing with other desirable local fruits at one-fifth or one-tenth the cost.

Canned Fruits.—In proportion to their population, the Netherland East Indies do not consume large quantities of canned fruits. About three-fourths of the canned fruits brought into the Islands are from the United States. China ranks next in importance, sending considerable amounts of lichees and bamboo sprouts in the No. 2 can for the Chinese trade, and lesser amounts of pears and peaches of inferior grade. Australian canned goods come to Java in smaller quantities and do not create any considerable competition with American canned

fruits. European jams and jellies are popular among the wealthier families of the white race.

Because of trans-shipment and because of the failure to segregate imports into classification by countries of origin, it is impossible to obtain accurate detailed statistics of the consumption of the various canned fruits. The best estimates were those secured from the local agencies of California packers.

Probably the total consumption of canned fruits from America aggregates 60,000 cases a year. Of this, more than half is canned grapes that sell to the Chinese and native trade. Of the remainder, peaches rank first, cherries second, pears third, and apricots fourth. The total amounts of each of these are similar. There is small difference between the amounts of peaches and apricots sold.

Grapes are the great canned-fruit commodity of the Islands. Most of these are of second or third grade which appeal, because of their low price, to the purchasing power of the Asiatic trade. Grapes became popular through the Chinese who, as elsewhere in these southern lands to which they have migrated, use them in connection with banquets and dinners with ice and iced drinks. Natives have followed the lead of the Chinese in the use of canned grapes. While the native consumption is still comparatively small, the better class of natives occasionally purchase the lower grades of grapes. Furthermore, local stores sometimes display a glass jar into which one or more cans of grapes have been emptied. These are retailed a few grapes at a time. Usually they are sold in company with a ball of shaved ice. Sometimes one or two canned grapes are dropped, together with a little syrup, into a glass of ice water.

The largest consumption of canned grapes is at the time of the Mohammedan New Year when the sales double or triple. The Arabs, who long ago migrated to Java, as well as the Mohammedan natives, consume canned grapes at that season. The Chinese New Year is another occasion for an increased demand. Canned grapes are distinctly a festival refreshment so that the sales fluctuate not only with the season but with the prosperity of the country. Under the present and prospective depression in the East Indies, the sales of canned grapes may be expected to decrease. Cherries also are consumed by Chinese and to a limited extent by natives. Owing to their higher price the sales aggregate only about one-fifth that of grapes. The people like cherries as well or better than grapes but the price limits their purchase.

Canned peaches, pears, and apricots are consumed only by Europeans. Their sale is therefore distinctly limited. Natives seem to find these soft fruits not particularly desirable. Here again, as in Malaya, it was noticeable that Chinese and natives attending the conferences at which samples were opened and served showed reluctance to taste these fruits and always failed to consume the small portions served to them. The European demand is relatively small both because of the large variety and low price of native fruits and because in this hot climate sweets are not in great demand among the white race. The small salaries and frugality of the Dutch also limit sales. As one highly placed Hollander expressed it, when he had influenza his wife offered to open a can of peaches for him but that "of course she would not do that when he was well" except, perhaps, when they had guests.

Probably 90 per cent of the sales of canned fruit are in the No. 2½ tin. The remaining 10 per cent are in the No. 1 tall size. The small 8-ounce cans are infrequently on sale and are not yet popular. The market is distinctly conservative. The largest sale of canned fruit, perhaps half of all that sold in the Islands, is for one brand which was introduced into the Islands a quarter of a century ago. The brand and label have long since been discontinued in America but must be retained here because the market refuses to accept any other. New brands and new sizes of old brands find tremendous sales resistance. Importers are therefore reluctant to embark upon new ventures either in label or in kind of package.

At wholesale, grapes sold in Java for \$6.40 a case, and for \$7.00 in Sumatra. At retail they were 28 cents a can in the No. 2½ size in Java and 30 cents in Sumatra. Prices for all canned fruits do not differ materially at interior towns from those at coast ports because wholesalers usually sell freight prepaid. In the No. 1 tall can grapes were 20 cents in Java and 22 cents in Sumatra. In the 8-ounce can they were 12 cents in Sumatra although Chinese stated that they had purchased them for 10 cents. It is common for prices at retail to be quoted higher to Europeans than to natives. None of these 8-ounce cans of grapes were found on sale in Java.

Canned peaches wholesale in Java at \$8.00 a case in the No. 2½ size; for \$9.30 in the No. 1 tall size; and for \$7.60 in the 8-ounce size. They retailed at 34 to 37 cents in the No. 2½ can and at 26 cents in the No. 1 tall can. Pears wholesaled at \$8.00 a case in the No. 2½ size; \$9.30 in the No. 1 tall; and \$7.60 in the 8-ounce size. At retail they were 40 cents in the No. 2½ can and 26 cents in the No. 1 tall. In Sumatra prices were 2 to 4 cents per can higher. Apricots both at

wholesale and retail brought the same prices as did pears. Fruit salad, the consumption of which is small, was \$10.60 per case of No. 2½ cans; \$12.80 in the No. 1 tall; and \$10.50 in the 8-ounce size. At retail it was 48 to 50 cents in the No. 2½ can and 30 cents in the No. 1 tall.

Freight rates from California points to Java are \$16 per ton of 40 cubic feet. To Medan in Sumatra they are \$2.00 a ton higher. There is a 12 per cent duty for imports. For the upkeep of the Statistical Bureau one-quarter of 1 per cent of the duty is added. Harbor dues are 12 to 14 cents a ton, dependent upon the port used. Landing costs in Sumatra are 80 cents a ton for discharge from the ship; 4 cents a case for coolie charges to load from ship to truck or train and 5 cents freight or truck charges from the port of Belawan-Deli to Medan. At Batavia the landing charges are 6 cents a case; the truck and coolie charges from the wharf to Batavia are 12 cents.

Canned fruit is brought into the Netherland East Indies by large agencies some of which are Chinese and others Dutch. The Holland firms are usually great companies which handle a number of commodities among which canned fruit is included. These often complained that the business was small and unprofitable. The Chinese importers seemed satisfied with the business and keen to increase it. Importers place orders on the basis of a year's supply as calculated from advance orders from wholesalers. Smaller importers usually use the indent system. Shipments are desired at intervals throughout the year. Usually importers carry small supplies on hand to satisfy interim orders received. Goods are sold by importers to wholesalers at 'ex-godown prices,' meaning, landed costs plus storage, overhead, and profit. Competition is keen among the wholesalers and importers so that prices are frequently forced to relatively low levels. Especially is this true in times of financial depression when wholesalers and importers desire to realize on stocks on hand and when sales are less than anticipated.

The 'Outlying Provinces' buy larger amounts of canned fruits than their proportion of the population would indicate. Bliss estimates* that the 29 per cent of the inhabitants of the East Indies who are in the 'Outlying Possessions' take 56½ per cent of the imports of canned fruits. He accounts for this by the fact that there are larger numbers of Chinese in the outer possessions and that these islands from a

* Trade Information Bulletin 620. "Market for Foodstuffs in the Netherland East Indies," D. C. Bliss, 1929. This publication, on pages 21-32, gives an extended discussion of the present market for canned fruit to which the reader is referred.

foodstuffs viewpoint are not self-supporting but produce exportable products such as rubber, tin, spices, etc., and that, furthermore, the larger amounts of ready money from employment make such purchases practical whereas in Java the natives are more nearly self-maintained. In Java probably 70 per cent of the imports of canned fruit are sold in the large port cities. In Sumatra probably 60 per cent is consumed in the important towns. Chinese dealers buy from importers and wholesalers on 30 to 60 days' credit. Since Chinese failures are not uncommon, the business holds hazards for the importer and wholesaler, particularly when in times of financial depression these failures are frequent.

Canned fruit is largely beyond the range of the purchase of the native trade. At certain large towns, as at Djokjakarta and Solokarta, there are important groups of well-to-do natives, but, in the main, with the exception of grapes the native consumption of canned fruit is negligible. Partially this is because canned fruit in No. 2½ tins is the only well-known size, partially because native fruit is abundant and cheap, partially because canned fruit does not appeal to the native as a desirable luxury in competition with other possible luxuries such as movie shows, a flash light, or a future bicycle. To the natives, canned fruit has little pull of attraction. To the Chinese, canned fruits are a desirable purchase for festivals and parties, particularly canned grapes or cherries. Meanwhile, the European regards canned fruit as an expensive food for which he has no particular craving but which is useful when desiring a novelty in the diet for himself or his guests.

Dried Fruits.—Raisins are the only American dried fruit which sells extensively to the native population in the Netherland East Indies. To a small degree, dry prunes are sold to Chinese and to natives. Other dried fruits, such as apples, peaches, apricots, and pears, are consumed only among the Europeans.

Among the Chinese population, dried fruits from China are sold in a manner similar to that in Malaya. This was fully discussed under that section of this report. Dates from the Near East enter the Dutch East Indies in large volume. In 1928, 5,700,000 pounds were imported, being divided almost equally between Java and the other sections of the East Indies. These dates which retail at 8 to 14 cents a pound are used by Arabs and by natives in large quantities at the time of the Mohammedan New Year. Because of their low price, they furnish an acceptable sweet for the Mohammedan population. Efforts to popularize American dried fruits, such as raisins and prunes, have

had to meet the competition of the cheap Arabian date. The fact that dates from the Near East are dirty and adulterated with sand, twigs and insects does not present sufficient deterrent to influence the natives to purchase the cleaner but more expensive American dried fruits. Many of the imports of dates are credited to India in the government statistics because they are frequently trans-shipped at Indian ports from their port of origin.



Booths, advertising California raisins, were erected at local fairs, each booth being in the shape of a raisin carton. At these booths raisins were sold in a paper envelope containing 30 raisins for a "gobang," a copper coin equivalent to an American cent.

Because of the heat and dampness, all American dried fruits must be shipped into the East Indies in tin containers. Fruit packed in wooden boxes rapidly spoils. For European consumption fruits are packed in cans of 1, 2 and 5 pounds. Raisins usually enter in 25-pound tin-lined cases. Cartons, without a protection of tin-lining to the case, become unfit for sale in a short period although by storage in refrigerated rooms their deterioration may be postponed. The cost of tin-lined cases or of packing in tin cans necessarily increases the price of the American fruit and makes it more difficult to successfully compete with other foodstuffs offered to the native population.

Raisins are imported from Australia and the Near East for festival consumption. These are large yellow-bleached Sultana raisins which

have a strong appeal to the Arabs and natives. Their high price has prevented any very large sales except for extraordinary occasions. California raisins were popularized in the Dutch East Indies as elsewhere in the Far East, by extensive trade promotion carried on for them over a series of years. Booths were erected at local fairs, each booth being in the shape of a raisin carton, and at these booths raisins were sold in a paper envelope containing thirty raisins for a 'gobang,' a local copper coin equivalent to one American cent. Free coupons



In Java, automobile trucks, painted to represent the raisin carton, went about the country putting raisins on sale in every country village.

were sometimes given at the entrance to these fairs entitling the holder to an envelope of raisins. Outside the booth lectures were delivered in the vernacular extolling the value of the raisin, that it was better than the date and had a large number of seedless fruits in a package. Automobile trucks, painted to represent the raisin carton, went about the country. Talks were delivered in school houses, free samples given away and small envelopes sold, after which a supply was placed on sale locally in the villages. Cases of raisins holding 25 pounds were sold to dealers with 800 envelopes designed for the retailing of the contents. No money was spent on newspaper advertising. The result of this propaganda was a large sale of raisins in small envelopes to school children. In western Java this still continues. In eastern Java the sale through small envelopes has passed away in favor of larger

bulk sales to bakers and confectioners. The school boy of eastern Java has ceased to buy raisins as a confection, possibly because the trade promotion seeking to capture him has been discontinued.

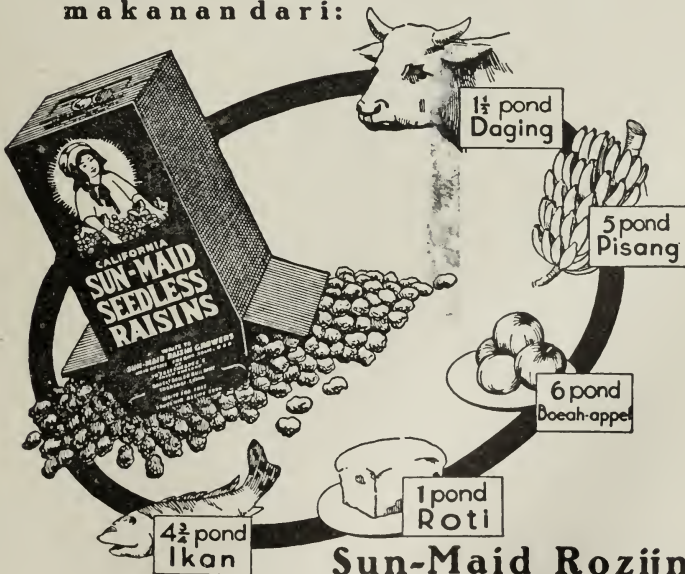
Makanlah lebih banyak

Sun-Maid-Rozijnen!

Satoc pond Kismis
mis tjap Sunmaid

mempocnjai se-
roepa kekocatan
makanan dari:

(Kismis tida ada bidjinja)



**Sun-Maid Rozijnen
ada lebih baik,
manis
dan bersih dari semoea
laen² roepa Kismis.**

Bisa didapet moclai dari 2 1/2 cent

In Java a campaign of advertising is seeking to win older persons to the use of raisins. This poster, in Malay, emphasizes the food value of raisins as compared with other foods.

In the 'Outlying Provinces' California raisins are even more popular than in Java, because there are not so many competing confections. In Java ice cream, iced drinks, and many kinds of candies attract the school child. In the other islands fewer of these are offered, so that the California raisin has a larger share of the field.

At present, out of a total sale per year of 12,000 to 16,000 cases of California raisins in the East Indies, more than half are sold in the 'Outlying Provinces.' It is recognized that sales could be increased by the expenditure of funds for trade promotion in the same manner as used in earlier years. At present a campaign of high-class advertising is going forward in limited degree seeking to win older persons to the use of raisins, the advertising being based on their high food value. Attempts to get the Dutch housewife to use raisins with rice instead of their familiar and time-honored "rice and currants" have not been successful, but a large use for raisins in cakes and bread for native and Chinese consumption has grown up in some of the larger centers of population. Unfortunately, the economy of local bakers leads them to decrease the number of raisins as much as possible. One may see offered for sale a large flat cake whereon six raisins adorn the top..

Two-thirds of the sales of California raisins in the East Indies are in bulk in 25-pound tin-lined cases with which envelopes may or may not be supplied. If envelopes are not furnished, 20 cents of the purchase price is deducted. In eastern Java most bulk sales are accompanied with envelopes. In western Java envelopes are not used. About 25 per cent of the raisins sold are in cases holding 144 small cartons of $1\frac{3}{4}$ ounces. That this form of package is so small a proportion of the total is evidence of the low buying power of the natives. It is too large for them to purchase, although it retails at the equivalent of 4 American cents. About 10 per cent of the sales are in 15-ounce cartons for use of bakers. This demand remains relatively steady while the bulk sales are likely to fluctuate with the prosperity of the country and the trade promotion conducted. At wholesale, raisins sell for 16 to 17 cents a pound. At retail they sell in bulk for 20 to 28 cents a pound. The 15-ounce carton retails at 20 cents.

Prunes present perhaps the best opportunity for large additional sales among all American fruits in the Dutch East Indies. Already prunes are comparatively well-known to the Chinese for their medicinal value. Some promotional work has been conducted for them. One importer at a local fair steamed prunes and sold them one by one in a cooked form to natives to illustrate how attractive this fruit might be when properly prepared. The result, as measured by increased sales,

dried apple. Prunes for European use are usually sold in tin cans of 1, 2, and 5 pounds. In bulk they wholesale locally at 20 to 22 cents a pound, the 50-60 size usually being used. Retail prices were actually lower in December 1929 than wholesale prices, since retail shops had on hand stocks from the previous year's crop which sold at lower prices. Prunes were retailing in tins at 20 cents a pound and in bulk at the same price. In Sumatra the cost was 5 to 10 cents higher.

The European demand for dried fruits other than prunes and apples is small. Dried apples wholesaled in December 1929 at 29 to 34 cents a pound. They were found on sale at retail in tins for 23 to 26 cents a pound, while in the same cities dried apples in bulk were selling at 38 cents. The high spoilage of bulk dried fruit and the small turnover evidently led the Chinese merchant to charge a higher price for the bulk dried apples. Apricots were wholesaling at 48 cents per pound and retailing at 50 cents. White California figs in 1-pound tins retailed at 40 cents a pound.

The costs for freight, duty, and delivery charges on dried fruits are the same as those previously given for canned fruits in the Netherland East Indies. Dried fruits are ordered by importers who act as distributors for California packers. These sell to Chinese wholesalers who, in turn, distribute to dealers and retailers. Dried fruits in tins are found on sale at all interior towns where there is a European population. Raisins, apples, and prunes predominate at interior points, other fruits being less frequently on sale. Freight rates on the State Railways of Java and Sumatra are high. Freight per case of dried fruit varies from 16 to 30 cents, according to the distance transported. Motor-truck service is even more expensive. Points not reached by railroad frequently have high transportation costs.

Any large sales of dried fruits are dependent upon the possibility of retailing in small units at low prices. Chinese dealers and European importers were both of the opinion that prunes could be popularized among the Chinese and among a portion of the native population provided they could be retailed, one prune at a time, for 1 local cent per prune. This price would be equivalent to $2\frac{1}{2}$ prunes for 1 American cent, or, in the 50-60 size, at 20 cents a pound. Wholesale prices must be substantially lower than this in order to enable the retailer to become interested in the business. At the equivalent of 1 American cent per prune, the sales will continue to be small to the native trade unless the medicinal value of prunes can, by advertising and trade promotion, be sufficiently impressed upon the Asiatic population so that the commodity enters into the class of medicines rather than that of confections or of foodstuffs.

Trade Promotion Methods in the Netherland East Indies.—The greatest obstacle to be overcome in trade promotion for California fruits is the fact that natives, Chinese, and even Europeans do not particularly care for most of them. The natives and Chinese do like raisins, they like canned grapes and cherries, and they evidence a growing liking for dry prunes. Among fresh fruits they like apples, grapes, and oranges. Other fruits—fresh, canned, and dried—are of little interest to them as a luxury purchase. It must be borne in mind always that imported fruits are in the luxury group among the people of the East Indies.

There are three coins in the Netherland East Indies which are in general circulation—the ‘gobang,’ or 2½-cent piece, equivalent in value to an American cent; the 10-cent piece which equals 4 cents in American money; and the quarter-guilder, or 25-cent piece of parallel value to an American dime. Any article selling extensively to the native trade should retail for one of these coins. Obviously it must sell at wholesale at a price enough below these values to enable the dealer and retailer to make an attractive profit, else they will not push sales or, perhaps, even stock the commodity.

In general, articles to be sold by the millions to the millions must sell for a ‘gobang.’ It is this value of an American cent which is the greatest current unit of expenditure among the natives. Where ‘gobangs’ will rattle in the till by the millions, dimes will come in only by the thousands and quarter-guilders by the hundreds. The successful sale of raisins in the East Indies is based upon the fact that they could be bought for a ‘gobang.’ To be sure, the price was higher in such minute quantities than in larger units of purchase but the native often had the ‘gobang’ to spend and he infrequently had a dime and seldom a quarter-guilder.

It is difficult to get American fruit down to such units of purchase that a small coin will complete a sale. It is possibly only in a few fruits. For this purpose, the raisin and the prune present the best opportunities. The raisin market has not been saturated. The market for prunes is yet to be developed. Canned fruit, obviously, does not come within the range of any of the three coins mentioned except, perhaps, the quarter-guilder. At present, even the 8-ounce can usually sells at a higher price. The fact, however, that 8-ounce cans of Thompson seedless grapes are on sale in the East Indies for a quarter-guilder, 10 American cents, evidences the fact that there are possibilities that this size package might retail for that price.

Prunes present the best possibility of expansion because they have an additional appeal beyond that of a foodstuff or a confection. Because prunes can be promoted as a medicine, they might, even at present prices, be sold to natives successfully. The appeal of "obat," or medicine, is great among the people of the East Indies. One sees large numbers of medical advertisements in the name of 'obat.' For a medicinal purchase, the native limit is a quarter-guilder. It is possible to sell great quantities of a popular medicine even at that relatively high unit of purchase. In envelopes holding two prunes for a 'gobang,' or in small cartons giving fifteen prunes for a local dime, prunes could probably be successfully promoted. The mere passive offer of prunes in these units would not achieve success. Too many other products claim the attention and money of the native. He must be introduced to the prune as a pleasant confection which also contains the magical and beneficent 'obat.' It would be necessary to conduct a widespread campaign heralding the power of the prune to conserve health and strength. Afterward, the attention of the native must be held until eating prunes becomes a permanent habit of his life.

Such a campaign should begin with high-class advertising in newspapers in Dutch, Chinese, and Malay. These should, if possible, display testimonials from some of the native princes. Free sampling should be done from the thousands of coffee shops. On certain days a dry prune should be given away with each purchase of a cake and cup of coffee. Afterward, in bulk, they should be placed on sale in these coffee shops at the rate of one prune for a local cent, equivalent to $\frac{2}{5}$ of an American cent. Local fairs throughout the country should offer an opportunity for the people to become acquainted with dry prunes. A coupon on the entrance ticket enabling the holder to get a free sample by calling at the booth is a method that has already been used for raisins. Small cartons of prunes, purchasable as 'obat' for a local dime, 4 cents, should be on sale in every country village. In the beginning it would be necessary to package these cartons in small tin boxes to enable the retailer to dispose of an entire box before the contents spoiled. Later the usual size cases might be used as the demand increased. It is only by some such campaign as that outlined above that prunes can be brought into general consumption. It is believed, however, that the outlook is sufficiently encouraging to warrant the effort.

Of all the canned fruits, canned grapes in 8-ounce tins to retail for a quarter-guilder, present the only large opportunity. No extensive trial of these has been made so that the inference that they could be

successfully sold is based chiefly upon the liking of the people for grapes and upon the fact that purchases in larger units are beyond their power. Obviously, canned grapes, if they are to sell in large quantities in small units, must be introduced to those who have not previously purchased them, or, at least, to those who previously have eaten them infrequently. The Chinese, for all their liking for grapes, are infrequent eaters of them. At present their use is only at banquets and dinners. Canned grapes in small units might be placed within



School-boys in Java sold raisins in the villages and small towns and in the vicinity of school-houses.

the range of frequent use by Chinese. If they would not sell to the millions they might, at least, sell to the thousands of Chinese.

To popularize grapes in small cans would require time, money, and effort. Here, as elsewhere, the Chinese are conservative not only as merchants but also as consumers. To them canned grapes are a banquet dish purchased in a large No. 2½ can under a well-known brand. Small cans presented to influential Chinese citizens at frequent intervals, advertising in Chinese papers, and the extensive display of the new small size would aid the undertaking. Most of all, however, the small can should sell at approximately the same rate per unit as the large cans. If there is about one-fourth of the contents of the No. 2½ can in the 8-ounce size, then the 8-ounce can must sell at about one-

fourth the price of the No. 2½ tin. Too great a price differential, based upon the cost of the tins, causes the Chinese to feel that they are not getting the worth of their money. Instead of eating canned grapes frequently in small amounts, they would prefer to continue, as before, to defer their use until such time as an occasion of sufficient importance arose to warrant the purchase of the No. 2½ can.

Fresh imported fruit is beyond the usual range of native consumption. It can appeal only to the well-to-do among the Hollanders, the Chinese, and the natives. Fresh fruit will continue to be purchased occasionally even by poorer natives because of their impulsive extravagance. Fresh fruit at present prices can sell only to the hundreds, or perhaps to the occasional thousands. However, the importance of fresh fruit can and will increase as the distribution becomes wider so that it comes within the range of a larger number of the luxury class. How much of this increased market will pass to Australia and how much to America is a question which only the future can answer. Australia with the improving methods used in grading and packing fruit is in a position because of the short haul, often without refrigeration, to place fresh fruit in the markets of Java at low prices.

FRUIT MARKETS IN THE INDIAN EMPIRE
AND CEYLON

TABLE 61

DIRECT FRUIT EXPORTS FROM CALIFORNIA TO BRITISH INDIA

Kind of fruit	1927		1928		1929	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
<i>Canned</i>						
Berries.....	33,988	6,424	41,677	7,932	68,482	13,283
Apples.....	12,623	1,663	27,907	3,780	26,850	3,107
Apricots.....	62,041	8,202	68,451	9,408	76,007	9,890
Cherries.....	112,361	17,264	85,373	14,573	94,076	17,904
Prunes.....	261,004	32,831	247,741	33,411	307,530	40,521
Peaches.....	264,867	28,380	323,390	35,018	369,902	43,843
Pears.....	105,123	14,559	117,102	18,375	175,527	26,153
Fruit for salad.....					256,515	45,132
Other canned.....	75,140	11,492	96,688	14,611	120,555	17,936
Pineapples.....	35,270	4,991	45,581	6,712	74,396	9,913
Jams, jellies, etc.....	139,021	28,949	162,657	29,267	21,644	5,177
Total.....	1,101,438	154,755	1,216,567	173,089	1,591,484	232,859
<i>Dried</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Raisins.....	10,875	1,038	32,330	2,141	14,583	1,295
Apples.....	14,024	2,610	15,021	2,020	29,613	6,267
Apricots.....	3,082	573	5,125	988	8,857	2,428
Peaches.....	2,291	373	2,174	336	6,330	1,342
Prunes.....	49,622	5,027	227,528	19,814	147,957	15,203
Pears.....					2,285	449
Other dried.....	11,487	1,958	12,541	2,057	11,761	1,878
Total.....	91,381	11,579	294,719	27,356	221,386	28,862
<i>Fresh</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>
Grapefruit.....	125	510	20	100		
Lemons.....	19	113				
Oranges.....	267	1,712	3	15	1	4
Apples.....	505	1,147	50	75	956	2,145
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Berries.....	400	100				
Grapes.....	1,550	300				
Other fresh.....						

FRUIT MARKETS IN THE INDIAN EMPIRE AND CEYLON

It has been said frequently that "India is not a country, it is a continent." Its vast area, enormous population and many races of people create an insurmountable difficulty for anyone who would briefly describe this part of the British Empire.

India has a population of 318,942,480, to which must be added 5,124,992 for Ceylon. Together they constitute almost one-fifth of the human race. India has 1,805,000 square miles. Ceylon adds 25,000 more. Thus, India with an area about one-half that of the United States has a population almost three times as large. Where the United States has 32 persons per square mile, India has 177. Successive waves of conquest and migration have superimposed peoples from many of the nearby countries of Asia. These, fusing with the original inhabitants, have created mixtures and gradations of many races. Various religions were brought with the successive conquerors. Modified by their environment, these religions separate and divide groups which otherwise would be in close contact. Religions have brought with them customs of food and dress, as well as of habit and thought, so that any general statements as to the tastes and purchasing power of the people of India is certain to be true only of some groups and not of others.

India is essentially an agricultural country. About 90 per cent of the people live outside of towns and cities. Of all the people of India, 73 per cent are directly engaged in agriculture. Only 1 per cent are in organized industries, such as manufacturing, while 8 per cent are in trade and transport and 9 per cent in unorganized industries connected with the supply of simple household and industrial necessities. Agriculture is the great business of India. Most of the people live in small villages, of which there are 685,665 in India. From these they go out to till the land.

India depends for its prosperity upon the monsoon. The warm, moist wind from the Indian Ocean spreads over the Bay of Bengal and the Arabian Sea during June and brings to India the rain upon which the crops and the prosperity of the country depend. The extent and duration of this monsoon determine the prosperity and the buying power of the people during the ensuing year. During one year in five, the monsoon is deficient. In one year in ten the failure is severe. It is during these recurrent failures that famine conditions arise. The

Government of India has developed extensive irrigation works to increase food production and mitigate failures in the monsoon. Out of 225,000,000 acres in India sown to crops, there are 27,473,000 under irrigation. A network of railways has been built, totaling 39,711 miles, in order to get crops to market and to reach with foodstuffs sections threatened by famine. All these measures have improved the welfare of the country and the buying power of its people.

In the towns are 32,500,000 persons, not an inconsiderable population. Even if for purposes of study or trade all the people of India



Agriculture is the great business of India. Most of the people live in small villages. From these they go out to till the land.

be discarded except those who live in the towns, the remaining population would still be as great as in many large nations. India has 33 cities with a population of 100,000 or more. Of these Calcutta and Bombay each have over a million people. Calcutta with 1,327,000 is the largest city in the Indian Empire. Bombay ranks next with 1,175,000 more. In any part of the world, these cities and their markets would be of consequence. Madras has over 500,000 people and Hyderabad has more than 400,000. Rangoon and Delhi each have over 300,000. Despite the predominant agricultural population, India is a land of big cities.

In 1921 there were in India 174,057 persons of European and allied races. Of the Europeans, 115,606 were British-born. There were 10,587 others from Europe, America, and Australia. In addition to these there were 113,090 Eurasians, known here as Anglo-Indians.

Thus, the white and half-white population of India consists of less than 300,000 persons, or one in a thousand of the population.

In India there are 222 languages, dialects not being included, of which 13 are the most important. Of these, Western Hindi is spoken by about one hundred millions, almost one-third of the population of India. Bengali is spoken by fifty millions, and Telegu by thirty millions. The obstacle of language to trade is therefore not so great as might at first appear.

According to the census of 1921, there were in all India 22,600,000 people able to read and write. This constitutes a little over 8 per cent of the population. Of these only 2,500,000 can read and write English—less than 1 per cent of the population. Thus, advertisements, posters, billboards, etc., in English can hope to reach but a minute fraction of the population. Literacy is steadily increasing, however. In 1925-26 there were 10,500,000 students in educational institutions.

The political administration of India is divided between the fifteen provinces which constitute British India, and the Native States which are under their own rulers and laws, subject to certain restrictions and to the general overlordship of Great Britain as a suzerain power. About one-third of the area of India and one-fifth of its population are within the borders of the Native States. These vary from tiny holdings to states such as Hyderabad, as large as Italy. The government of these states, provinces, and other political subdivisions need concern but little, however, the question of the development of markets for American fruits. The political devices by which various portions of India are governed are only of consequence so far as they affect the prosperity, education, and modernization of the people.

Because of the essential differences between the people of the Indian peninsula, here termed India proper, and those in Burma and in Ceylon, each of these three areas is discussed separately in the following pages. Burma is governed as a part of India; Ceylon is a separate Crown Colony. To the student of foreign markets the three group together as the general problem of British India.

BURMA

Burma, the largest province in India, is about the size of the state of Texas. Of the whole population of 13,200,000, over 80 per cent are Burmese, Shans, Kachins, etc., who belong to the Tibetan-Chinese family and who profess the Buddhist faith. The Burmese largely reside in the rural districts, the alien population being mainly in the cities. There are 888,000 Indians, 149,000 Chinese and 25,000 Europeans and Eurasians.

Essentially, the province is agricultural. More than 80 per cent of the people are supported by the soil. The principal crop is rice, two-thirds of the cultivated area being given to that cereal. Rangoon, the capital and chief seaport, has a population of 386,000, most of whom are alien Asiatics. Mandalay, the second city, has a population of 147,000. Away from these large cities the Burmese predominate.*

The Burman differs essentially from the Indian in that the Burman is pleasure-loving and extravagant. The limit of his spending is only measured by the amount he can borrow. Because of the large influx of natives of India to this province, the Burman is rapidly losing his economic supremacy, many of the rice fields having fallen into the hands of the Indian money-lenders. Where the Indian is miserly in hoarding his money, the Burman spends freely whatever he can earn or command. This fact has an important bearing upon the markets for imported luxuries, among which fruits are included.

The Irrawaddy River, upon which the large cities of the province are located, is the great natural thoroughfare. Wherever practicable, products to and from the rural districts travel by water on steamers and barges. The Burmese Railway has a length of 1,908 miles and traverses the country.† There are no refrigerator cars in Burma.

In 1928 the imports of Burma were \$142,000,000 and the exports \$243,000,000. Despite this apparently favorable trade balance the country is far from prosperous. Invisible exports of money and credits of the natives of India to their homes in other provinces, of the great British houses to the homeland, and of payments to support the Government of India deplete the favorable balance of Burmese trade.

The general standard of living is higher in Burma than in other portions of India, and second only to that of Ceylon. Partially, this

* General Information Sheet, American Consulate, Rangoon. 1929.

† Indian Year Book, 1929. Published by "The Times of India," Calcutta.

is due to the fact that the Burman spends, instead of saves; partially because wages are higher in Burma than elsewhere. In central India wages for coolies may be \$4.50 a month; in Burma for the same work they may be paid \$9.50. It is the relatively high wages that have brought the large migration of Indians to Burma. Household servants in Burma may be paid from \$7.40 a month, the wages of a sweeper, to \$18.50, the salary of a butler. In other portions of India these same services would command only half as much. A land owner whose income may not exceed \$11 a month may have ambitions to educate his son. If by borrowing he can bring the boy through the equivalent of the seventh grade of school, the son can as a teacher start at \$18 a month. If he is able to complete high school he can begin his career at \$30 to \$36 a month. If, finally, he is able to obtain a year in normal school, his starting salary will be \$45 to \$50 a month. Any of these salaries are far beyond the earnings of his father. Nevertheless, all that the son receives will be squandered in some manner. None will be saved.

As contrasted with the Burman who, whether educated or not, spends his money freely, the Indian coolie who has migrated to Burma is a hoarder of pennies. Great numbers of these natives come to Burma, harvest the rice crop, and return to their homes at the end of the season. Ships to and from Calcutta, Madras, and Colombo travel loaded with deck passengers. Rangoon annually has more passenger traffic than any port except New York. Many of these Indians finally remain in Rangoon and vicinity as laborers, sending their earnings back to their families in their native villages. Despite the fact that most of this money is returned to India by mail, it is said that the transmission of telegraphic money orders from Burma to India pays the entire cost of the Burmese telegraphic system. Not all the immigrants prosper. Poverty is rife amongst them. Every night between 15,000 and 20,000 sleep on the sidewalks of Rangoon because they have no other place to go. If the buying power of many Indians in Burma is high, their purchasing desire is low. It is the Burman who is the real market for imported goods.

The climate of most of Burma is tropical. In the central and delta section is it hot throughout the year. The delta region, which is the thickly settled portion of the country, has a rainfall of 90 to 100 inches. At Rangoon the rainfall averages 110 inches, while at places on the coast it reaches 200 inches. Practically all of this moisture falls between May and October, the other months of the year being dry except for occasional showers. However, the air at all seasons is intensely humid in the coastal and delta regions. The moist-

ure-laden air from the Bay of Bengal creates a high humidity over lower Burma which causes the storage of fresh and dried fruits to be difficult and hazardous. Exposed to the air, refrigerated fresh fruit rapidly deteriorates. Dried fruits must be packed in moisture-proof and insect-proof containers.

Fruit in the Diet of Burma.—The diet of the Burman is based upon rice together with a curry made up of fish, vegetables, or meat. Much oil is used in the curry; usually this oil is derived from sesamum seed but it may be peanut or cottonseed oil. With the curry, spices are extensively used together with a hot sauce prepared by the putre-



Much of the fruit grown in Burma is in districts distant from the large centers of population. Thus fruit is a purchased rather than a home-grown commodity.

faction of fish, a sauce similar to that used in Siam. Considerable quantities of vermicelli are used as a carbohydrate in place of rice. In 1929, 20,661 cases were imported. Many succulent vegetables are eaten in either fresh or cooked form. Except among the upper classes, fish and meat are recognized as luxuries to be used sparingly. Canned salmon and the California canned sardine have a great vogue in the interior. Although the Burmese are exceedingly fond of sweets, these are not usually eaten with meals. Fresh fruit may be consumed at the end of the meal but this is understood to be an addition to the customary diet.

Normally, the Burman has two meals a day, the first being in the late morning and the second in the late afternoon. The lower classes, such as the cultivators, usually live on meals costing not more than

6 cents each, while the middle classes spend from 8 to 12 cents a meal. The foodstuffs purchased by these two groups do not differ materially, but the middle classes have a larger variety and buy vegetables, meats, etc., that are in better condition.

As in other places where a rice diet pertains, there is much eating between meals. At thousands of tea and coffee shops a cup of tea or coffee, abundantly supplied with sweetened milk, can be purchased at from 2 to 8 cents. A slice of bread to accompany it costs 2 cents. In these coffee shops refreshments of all kinds are sold. These include candies, sweet crackers, fresh and dried fruits, and cigarettes.

Much of the fruit grown in Burma is in districts distant from the large centers of population. In the delta of the Irrawaddy the endless rice fields present no opportunity for the growing of fruit. Thus, fruit is a purchased rather than a home-grown commodity with most of the people. Imported fruits, whether fresh, dried, or canned, do not suffer from the same competition as in countries further south where the native usually has fruit which has cost him nothing. The use of fresh and dried fruit between meals in these coffee shops or elsewhere is extensive. The sweeter the fruit the better to the taste of the Burman.

Fresh Fruits.—The native fruits of Burma are eaten and enjoyed by all races. Usually the Indian ranks lowest as a purchaser of native fruit, the Chinese next, and the Burman highest of all. Imported fresh fruits are seldom eaten except by Europeans and the wealthiest class of natives.

TABLE 62
NATIVE FRESH FRUITS
BURMA

	Seasons	Average Prices at Retail
Banana.....	All year.....	½c- 1c each
Cocconut.....	All year.....	4c-15c each
Jack Fruit.....	All year.....	20c-60c each
Papaya.....	All year.....	4c-15c each
Pineapple.....	All year.....	2c- 4c each
Watermelon.....	Jan.-Apr.....	10c-12c each
Strawberries.....	Feb.-Apr.....	7c-10c small basket
Mangosteen.....	Mar.-Jan.....	5c-10c per dozen
Kana-zoo-thi.....	Mar.-June.....	½c- 1c each
Mango.....	Mar.-Aug.....	1½c- 2c each
Guava.....	Apr.-June.....	½c-¾c each
Durian.....	Apr.-July.....	11c-13c each
Peach.....	May-July.....	½c- 2c each
Custard Apple.....	July-Sept.....	½c- 1c each
Pomegranate.....	Oct.-Feb.....	1c-1½c each
Orange.....	Oct.-Mar.....	1c- 2c each
Lime.....	Oct.-Mar.....	1c- 4c per dozen

All the year round, fresh native fruits are in the market. Stalls and stands with an extensive and attractive display of native fruits are a feature of the bazaars. Europeans as well as Asiatics purchase their supplies of fresh fruits in these markets. Table 62 gives a list of the more prominent native fruits, together with their seasons and retail prices.

Imported fresh fruits come to Rangoon from India (proper), from Spain, from Australia, from Japan, and from America. Because there is (January, 1930) no line of ships between American ports and Rangoon on which there is refrigeration space, the amount of American fresh fruits imported into this market is small. American fruits are usually sent by refrigeration to Singapore and there trans-shipped on local steamers to Rangoon as deck cargo. Occasionally fresh fruit, such as California oranges, are purchased in British markets and shipped under refrigeration from Great Britain to Colombo, Ceylon, where they are trans-shipped to one of the two lines of steamers which carry refrigerated cargo from Colombo to Rangoon. In such instances the California fruit travels almost two-thirds of the entire circuit of the globe to reach its final destination in Burma. It is understood that in the near future a direct line of steamers carrying refrigeration will sail from California ports and will include Rangoon in the stops made.

Apples, grapes, and oranges are the popular imported fruits in Rangoon, ranking in the order named. In January, 1930, there were in the markets of Rangoon, apples from Australia, from Japan, and from the United States. Grapes from Spain sold beside grapes from America. Pears from Japan were on sale with American pears. Lemons from Palestine were ranged beside local limes and oranges.

Apples from America sold at wholesale at \$4.80 a box and retailed at 9 cents each. Apples from Japan, of good appearance, were 6 cents and from Australia 4 cents. American grapes wholesaled at \$4.80 to \$6 per keg of 32 pounds. At retail they were 26 cents a pound. With them in the markets were grapes from Spain at 37 cents a pound. American pears retailed at 15 cents each. Japanese pears were on sale at 8 to 10 cents each. Lemons from Jaffa, of good quality, were offered at 4 to 8 cents each.

Fresh fruit from Singapore to Rangoon comes as deck cargo at the rate of \$8.55 per ton of 50 cubic feet. Import duty is 15 per cent. Harbor and wharf dues vary according to the manner in which the cargo is unloaded and the size of the shipment. These average, however, about 78 cents per ton of 40 cubic feet. Truck and coolie hire from wharf to warehouse average $2\frac{1}{2}$ cents a case.

There is no available cold storage at Rangoon for public rental. One firm which conducts a wholesale and retail business has a private cold storage warehouse capable of holding 1,000 cases. Another large ice company has rooms ready for fitting for cold storage purposes large enough to hold 8,000 cases, but they are not yet equipped for that purpose. Fresh fruit stored in Burma encounters difficulties of preservation due to the high humidity. The opening and shutting of the doors of cold rooms condenses moisture on the walls which drops over the fruit. Chilled fruit removed from cold rooms is immediately covered with water condensed from the atmosphere. Consequently rapid deterioration occurs after refrigerated fruit is exposed to the air.

Imported fruits are usually brought to Rangoon on orders from importers who receive the fruit at c.i.f. prices. Occasionally, when the markets of Singapore or Penang are overstocked, fresh fruit is shipped to Rangoon on consignment, but such practice is not general. The importer, who is usually also the wholesaler, disposes of fresh fruit to the owner of stalls and stands in the bazaars. These buy the fruit for cash and sell it at retail to consumers. They also frequently sell in quantities of less than a box to hawkers and peddlers who retail on the streets. Because of the difficulty in keeping refrigerated fruit in this climate and because of the lack of refrigeration on the Burmese railways, there is no distribution of imported fresh fruit to up-country towns or cities. All imported fruit is sold in Rangoon.

At present the amount of imported fresh fruit sold is insignificant. If regular refrigerated steamship service from California is inaugurated, the volume of fresh fruit that may be sold in Rangoon will markedly increase. Cold storage space available for public rental will undoubtedly follow, provided the steamship service is at frequent enough intervals to enable the warehouses to maintain a continuous business.

In view of the fact that all fruit is shipped into the Rangoon area rather than produced there, the opportunity for the extended sale of imported fruit is greater than in those areas where native fruit is locally produced. However, as in Malaya and the Netherland East Indies, fruit from Australia because of the shorter and cheaper voyage can be landed at lower costs. The demand for California fruit is based upon its superior quality, variety, grading, and packing. So long as this supremacy continues, California fruit will sell in these markets at a premium sufficient to compensate for the additional costs of transit and the hazards of the longer voyage. Fresh fruit will, however, continue to flow in from Australia, Japan, and perhaps from

the Mediterranean. Since the Burma market for fresh fruit is confined to the city of Rangoon, its sale is necessarily limited to the upper classes in that city. Thus the market is relatively small and the sales of fruit from other countries must necessarily infringe on the opportunities for fruit from America, even though the latter is of better quality.

The opening of direct refrigerated communication between California and Rangoon will undoubtedly increase the market for imported fresh fruit in that city. Sales will expand as storage and distribution improve. Because not only the European but the Burmese population like and appreciate American fruits such as apples and grapes, the potential market for these is brighter than in other sections where the consumption is limited to Europeans.

Canned Fruits.—American canned fruit holds first place in the markets of Burma. Although European and Australian canned fruit is offered for sale in many of the stores, the sales of American fruits exceed all others. All races and nationalities in Burma like canned fruits. Sales, however, are confined to the relatively small class that can afford this rather expensive luxury.

Considerable canned pineapple of low quality is imported from Singapore. In 1929, 6,620 cases were brought through the Rangoon custom house. There were also imported 365 cases of canned lichees and 315 cases of bamboo sprouts. All these are used chiefly by the Chinese population.

In the past, 90 per cent of the canned fruit sold in Burma has been in the No. 2½ can and perhaps 10 per cent in the No. 1 tall. More recently, sales in the No. 1 tall can have been increasing. The new 8-ounce can, recently introduced, has begun to achieve some success. Among Europeans, the small cans are popular because families are small. European children do not usually remain in the trying climate of Burma but are sent to the homeland where better physical conditions and educational facilities are prevalent. Among the Burmese, the smaller sizes are popular because of their lower price. However, the small cans, even the No. 1 tall, are not always available, since many merchants prefer to stock one size rather than several. In such instances the No. 2½ can is the only one offered for sale.

Peaches, pears, apricots and fruit salad rank in popularity in the order mentioned. Canned cherries are also well liked but their higher price limits their sale so that, due to the possibility of spoilage through swollen cans, smaller dealers do not stock them. Although canned grapes are popular in southern China and among the Chinese in Siam, Malaya, and the Netherland East Indies, they are not con-

sumed by the Chinese in Burma. The turnover is therefore so small that many dealers do not offer them for sale. Held on the shelves for any considerable length of time in this warm climate, they are subject to spoilage from a gas generated in the seeds.

American canned fruits are imported by large retailers at c.i.f. prices through orders placed with agents of California packers who indent orders to America. Some of these retailers have a number of retail stores so that they order in considerable quantities. A small amount is sold at wholesale to other retailers and dealers. Canned fruit is usually shipped via the Pacific. In such cases it is transhipped at Singapore by steamers to Rangoon. Freight from California to Rangoon via Singapore is \$19.50 per ton of 40 cubic feet. Arrived at Rangoon, duty is 15 per cent. Harbor and wharfage dues vary according to the manner in which the cases are unloaded and the size of the shipment. In general this averages 78 cents per ton of 50 cubic feet. Coolie and truck hire from wharf to warehouse averages 2½ cents a case.

American canned fruit is often found on sale at large up-country towns and cities where there is a European population. However, probably only 10 per cent of the amount imported is sold outside of Rangoon. Up-country dealers usually pay cash for purchases at time of delivery at Rangoon, although a few Chinese wholesalers sell to up-country Chinese dealers on a credit basis. Freight rates vary from ⅘ cents a pound to the large city of Mandalay 376 miles north of Rangoon, to 1½ cents a pound to Namyao, 548 miles away. At these interior points retail prices are usually 2 to 5 cents a can higher than in Rangoon.

TABLE 63
CURRENT PRICES, RANGOON, BURMA, JANUARY 1930

	Per Case Wholesale		Per Can Retail	
	No. 2½	No. 1	No. 2½	No. 1
Apricots	\$7.03	\$8.88	\$0.41	\$0.27
Apples	8.50	.....	.46	....
Cherries.....	10.35	12.50	.51	.32
Pears	8.50	10.35	.51	.32
Peaches	7.40	9.25	.46	.27
Plums	7.77	.....	.32	....
Grapes .....	.....	.....	.37	....
Fruit Salad	10.75	13.32	.60	.32

Table 63 illustrates current wholesale and retail prices in Rangoon. Since there are 24 cans in a case of No. 2½ fruits and 48 cans in a case of No. 1 fruits, it is possible to estimate the spread between whole-

sale and retail prices. In the countries of the East, Europeans seldom pay cash for retail purchases. In British India many governmental officials and army officers feel required by their positions to live beyond their salaries, so that the interval between purchase and payment may be very extended. Therefore, retail stores are compelled to charge prices sufficient to cover long credit and bad debts. One store has inaugurated a cash-and-carry system. It has become popular among American missionaries and others who are accustomed to paying their bills and to whom lower prices are consequently of interest.

Eight-ounce cans of fruit are an innovation in the retail stores of Rangoon and are not yet generally known among either Europeans or Asiatics. At only two stores were they found on sale and in these stores they were placed inconspicuously. Dealers and wholesalers are of the opinion that when the 8-ounce can is known to consumers it will be popular among all those who are able to buy canned fruit. At present, 8-ounce cans of peaches retail at 18 cents and of fruit salad at 23 cents. These prices are approximately double the c.i.f. prices to which, of course, must be added duty, delivery charges, and a legitimate profit for both wholesaler and retailer. Because of the novelty of the small size and the hazard of a new introduction, prices at retail are higher than will be justified when the new size becomes well known.

At somewhat lower retail prices, the 8-ounce can will have a wide appeal to many Burmese and Chinese as well as to Europeans. If, further, trade promotion were conducted for the small size, the sales for that size alone might become considerably larger than the present total sales of all American canned fruits in Burma. If, finally, the costs in America and the freight, or both, could be so reduced that the 8-ounce can of fruit would retail at 4 or 5 annas (9 to 11 cents), the sales would be very large. At such prices the potential consumers would be so much increased that canned fruit would be used by large numbers of people to whom the price is now prohibitive. If the Burmese, who now generally know canned fruit as a luxury in a large tin requiring a single purchase of 50 cents, could be supplied with a small tin at about 10 cents, the present demand would be increased many fold.

Dried Fruits.—Large amounts of dried fruits are offered for sale in the bazaars and markets of Rangoon but they are not American fruits. Most of the dried fruit comes from Kashmir, Afghanistan, and the Near East. This fruit is cheaper than American dried fruits, is often sweeter, and therefore, both because of price and taste, appeals to the native trade.

Blocks of dates from the Near East, strings of dried and compressed figs from Persia looking like long sausages, and heaps of yellow Sultana raisins from Afghanistan are familiar sights in the markets of Burma. Apricots from upper India are on sale both with and without the pit. Kashmir dates, soaked in honey for six months, are sold as a delectable sweet to the native trade. Of the Asiatic dried fruits, figs sell at 14 cents a pound; dates for 15 to 20 cents; apricots for 11 cents; currants for 11 cents; and raisins for 14 cents.

The sales of American dried fruits are small but all the usual varieties are offered in retail stores catering to Europeans. Most of these are packed in sealed tins because of the rapid deterioration caused by the climate to all dried fruits open to the air. California raisins and prunes are sold in the native markets in cartons and in bulk because the sales of these are sufficiently frequent to enable them to be marketed before spoilage results. Other dried American fruit is occasionally seen in bulk in glass jars. Usually the price is higher per pound than in tin because of the losses to the merchant caused by spoilage. Bulk sales are due to the fact that natives and Europeans often do not desire to buy a whole tin. Usually stores catering to European trade have dried fruits in 2-pound tins only.

Dried apples in 2-pound sealed cans sold at retail at 48 cents per pound. In 1-pound cartons they were 55 cents, and in bulk were the same price. Apricots in 2-pound sealed tins were 60 cents per pound; in bulk they were 64 cents. Pears in tins were 53 cents a pound; in bulk they were 55 cents. Peaches in the 2-pound cans were 34 cents a pound; in bulk they were 37 cents. Figs, both white and black, were 46 cents in 1-pound cartons and 37 cents in bulk. Raisins from California in the little 1 $\frac{3}{4}$ -ounce carton were extensively offered for sale in the native markets for 4 $\frac{1}{2}$ cents. In the 15-ounce carton they sold for 14 cents. Prunes in sealed tins were 25 cents a pound.

All of the above prices raise the question whether 8-ounce sealed tins of American dried fruits would not find more extended sales than do the present sizes of 1, 2, or 5 pounds. Because the 2-pound can is usually the smallest size offered for sale, it is necessary when desiring a lesser amount to buy in bulk and pay the higher prices. After a sealed tin is opened, the contents must be consumed within a few days before molds or insects make them unfit for European food. Few families can use 2 pounds of dried fruit in so short a period. Europeans complained that American dried fruits were put up in such large packages that they were not usable. However, out of this has grown an incidental use that is of interest in those countries, if not in America. Prunes, in order to preserve them, are frequently soaked

in gin or brandy for six months or longer. At the end of that time they are served as a confection.

Dried fruit is ordered by large retailers who also act as wholesalers. These buy at c.i.f. prices through agents of California packers who forward indent orders to America. Duty is 15 per cent. Freight, wharfage, and handling charges are identical with those already quoted for canned fruits. There is little distribution of American dried fruits to up-country towns and cities. Probably not more than 5 per cent of the dried fruit received is sold outside of Rangoon. The native trade has not been offered American dried fruits in a unit small enough for possible purchase, nor at a price comparable with competing dried fruits from Asia.

Dried fruit in the 8-ounce sealed tin would appeal to the European trade throughout Burma. Raisins and prunes in small cartons retailing at the equivalent of $4\frac{1}{2}$ cents might appeal to the native trade. The present price of the $1\frac{3}{4}$ -ounce carton of raisins at $4\frac{1}{2}$ cents is 50 per cent higher than in the Netherland East Indies. A reduction in price or an increase in the size of the carton for the same price would result in larger sales. Prunes packed in small cartons, fourteen prunes to the carton, might have an extensive sale. If one-fourth of a pound of prunes could be retailed in a small carton for a 2-anna piece, a local coin equivalent to $4\frac{1}{2}$ cents, their sale would be much larger than at present. In the bazaars bulk prunes now sell per half-pound for 5 annas, about $11\frac{1}{2}$ cents. Slightly lower prices and a package that would retail for a common coin, such as the 2-anna piece, would probably succeed in popularizing prunes among the Burmese.

Trade Promotion Methods.—In Burma, as elsewhere in the East, the development of any large business is dependent upon sales to the native trade. Because of the small number of Europeans, any commodity that sells only to them must necessarily have very limited sale. To reach the native trade it is necessary to merchandize a size of package that is suitable to the use of the people. This usually means that it must be sufficiently small so that it can be sold at a low price. Soap manufacturers have developed small cakes that retail for 2 and 4 cents. The sales of these are enormous, despite the fact that formerly the people used no soap. Oil companies merchandize kerosene by the bottle for 7 cents and sell great quantities, although formerly the Burman used a vegetable rather than a mineral oil. British cracker manufacturers sell sweet biscuits by the hundred cases. They are retailed to the natives a few biscuits at a time. Successful trade promotion for California fruits in Burma is dependent upon the introduction of packages small enough to sell at a low price.

Furthermore, the commodity must represent a real value comparable with other luxuries that may be purchased for the same cost. Imported fruit, whether fresh, dried, or canned, is a luxury. The Burmese like American fruits but they can do without them; they are not a necessity of life. To sell in this market in competition with other products of world-wide civilization, American fruits must be marketed at a narrow margin of profit. At present the volume of sales is so small that the few importers exact a rather wide margin of safety and profit for their services. Larger sales should, through natural competition, bring reduced prices and larger values. Price is the first determinant factor in the success of any trade promotion in Burma.

Because the Burmese are more largely scattered through the interior than segregated in the capital at Rangoon, the successful sale of American fruits to the native trade is dependent upon wide distribution. The product must be presented in dozens of towns and hundreds of villages. Recently agencies which are supplied with funds for trade promotion by manufacturers have developed here a method of attractive propaganda through the 'bazaar special,' a railroad train the cars of which are divided into stalls, each presenting a commodity to be promoted. Stops are made for a day. Thousands of natives come down to walk through the train. Condensed and malted milk, soap, flashlights, and piece goods are all exhibited, sold, and sometimes given away as free samples. Necessarily only those goods are represented for which trade promotion funds are available. California fruits are not numbered among them. Following the train, salesmen go through the country placing supplies on sale at local stores.

The Burmese have an extended Lent at the end of which there are festivals at the various pagodas and places of similar gathering. These present an especially favorable opportunity for the exhibit and sale of packages suitable to the native trade. The distribution of handbills is here effective but they must be printed in at least four languages: Urdu, Telugu, Chinese, and Burmese.

American fresh fruits will increase in sales among Europeans and the highest class of natives with the coming of direct refrigeration service to Rangoon. Problems of distribution will remain to be solved before any material markets are developed. Canned fruits in the 8-ounce and 1-pound cans will appeal not only to Europeans, but to many of the natives, provided the 8-ounce cans can be retailed at about the equivalent of 10 cents, and the larger cans at a proportionate price. Raisins in the small envelopes and in the 1¾-ounce cartons will

enjoy much larger sales if their price is reduced to that prevalent in neighboring countries. Prunes, and perhaps other dried fruits, in 8-ounce sealed tins will sell to the European and the higher class native trade. In cartons of about 4 ounces they might be a successful venture before the native trade, provided the price at retail were not higher than 2 annas (about $4\frac{1}{2}$ cents in American currency).

For any and all of the foregoing, the increase of sales will be slow unless trade-promotion methods are used to bring and hold the products within the attention of the people. Because the people of Burma enjoy American fruit and because they spend their money freely, Burma presents a favorable opportunity for trade promotion for American fruits packaged in a manner to appeal to the native trade.

INDIA (PROPER)

The great Indian peninsula is the major possession of the British Empire in the East. Despite its great area, most of the huge population, dependent mainly upon agriculture in a land of deficient rainfall, is close to the margin of mere subsistence.

The population of the Indian peninsula is concentrated more densely in northern and southern than in central India. The river Ganges with its tributaries traverses three-fourths of the distance east and west across northern India, thus creating the Gangeatic Valley. On the west side this meets the valley of the Indus, a river flowing westward toward the Arabian Sea. These two river valleys have built a great northern plain of practically level area. Much of the soil is naturally fertile. The casual observer would be reminded of the Sacramento and San Joaquin valleys of California. Where irrigation is perennial, successive crops are raised. Where agriculture is dependent upon the rains of the monsoon that fall during the early summer months, agriculture is limited to one crop, and that crop is sometimes precarious. In parts of this area, rainfall is so scanty that the land is used only for pasturage. Adjacent to the valley of the Indus lies the great Sind Desert, a dry country of sands and waste land.

Near the west coast of central and southern India is a considerable mountain range. Central India, south of Calcutta and Bombay, is a somewhat hilly and mountainous region. Although in America the population would be termed dense, it is far less numerous than in northern India. Only in those areas where broad river valleys flow to the sea is the population crowded.

Southern India, south of Madras and Bangalore, is a region of considerable population but of somewhat hilly lands except along the seacoast. The large numbers dependent upon the land and the poor conditions for agriculture make this region one of the least prosperous in India. Until a few years ago, the people of southern India were more conservative than those of the north. Recently they have become ambitious for improvement and are now relatively progressive.

The religions and castes of India are perhaps its most confusing feature. Broadly speaking, of every hundred persons in the Indian Empire, 68 are Hindus, 22 Mohammedans, 3 Buddhists, 3 follow the religion of their tribes, 1 is a Christian, and 1 a Sikh. Of the remaining two, one is likely to be either a Buddhist or a Christian, and the other probably a Jain, possibly a Parsi, or perhaps a Jew, a Brahma,

or a holder of indefinite beliefs.* Expressed even more briefly, we may say that the great majority of the people of India are Hindus but a strong percentage are Mohammedans. It is chiefly among the Hindus that the mystery and confusion regarding India arises. Hindus largely predominate in central and southern India but are also strong in other sections. The Mohammedans predominate in northern India.

Among the Hindus there are 67 recognized castes with innumerable gradations thereof. This caste system, briefly, means that persons born into a certain sphere of life cannot rise above it and that contact with persons of lower caste definitely lowers the prestige, and perhaps the position, of the higher. Food touched by persons of lower caste becomes a menace. The highest castes are surrounded by many precautions and taboos that must be followed to preserve their position in the religious and social world. Hindus of most castes and sects are not supposed to kill living things.

The Mohammedans are not divided into the caste system, but into two great branches of Mohammedanism with variations thereof. These have certain food prejudices, such as the prohibition of pork, and that animals for food must be killed properly by a member of their own faith.

In the large cities all these religious prejudices are, however, weakening in the face of modern times. Orthodox Hindus, whose fathers would faithfully have carried out all the prohibitions of the Hindu faith, are likely to carry these out in public but to relax in the presence of Europeans or in the privacy of their own homes. The spread of education, the reading of newspapers, and the interchange of ideas with people of many lands in these days of extensive travel, all combine to break down the old religious prejudices among the wealthier classes of the Indian population, among whom any market for American fruit would lie.

For centuries past, the fabled wealth of the Indies and the glories of the Mogul Empire attracted traders from the nations of the world. In large measure, this wealth was concentrated in the hands of a few rulers. The mass of the population ravaged by wars, famines, and disease, were sunk in depths of poverty difficult for the Occidental mind to conceive. Within the past century, the political control of the entire country by a world power has freed the peninsula from the military adventurers that successively held India in economic and governmental subjection. It has also given opportunity for the

* "The Indian Year Book," 1929, published by "The Times," Calcutta.

development of railways, highways, irrigation works, sanitation, and finally, education.

Because of the scanty resources of the country, progress among such an enormous population must necessarily be slow. The people of India are probably, as a whole, still poorer than those in China. Especially is this true in most of the Native States where one-fifth of the people are gathered. If India ranks lower than China in economic level it is possibly due to the lower vitality of the Indian race and its inability to work excessively, as is customary among the lower classes of Chinese.

No competent statistics have been gathered concerning the purchasing power of the people of India. The Annual Yearbook prepared by the Government of India for the British Parliament describes "the nakedness of the land in respect to economic data."* Investigators and propagandists have published estimates as to the average income per person per year, varying from \$7.40 to \$51.80. The wide discrepancy between these estimates indicates the lack of dependable data upon which to base them. Even though the highest estimate be used, it is evident that the purchasing power of the masses is extremely low.

The Government of India imposes an income tax on all those in British India (not including the Native States) having an income of \$740 or over per year, except incomes derived from agriculture. In 1927-28 there were only 307,000 persons in all India, including Europeans, who paid this tax.† It is recognized, however, that the number subject to the tax may have been much larger than those who actually paid it. The character of the country and of the people leads to successful evasion of an income tax, a form of taxation which is everywhere recognized as presenting difficulties of successful collection. Especially is this true among a crowded Oriental population.

Native clerks in offices in large cities are paid from about \$28 to \$55 a month, with an average of perhaps \$37. Skilled workers in cotton mills are paid from \$11 to \$22 a month. Dock laborers are paid from \$11 to \$18 a month. The Government of India in a study of over 3,000 such families found that their expenditures for other than the necessities of life—expenditures termed "common luxuries"—varied from \$1 to \$2 a month in the case of the laborers and workmen, with only a slightly higher amount for the clerks.

* "India, 1927-28," Government of India, Central Publication Branch, Calcutta, 1928.

† "All-India Income Tax Return 1927-28," Central Board of Revenue, Government of India.

The average farm in India is about 2 acres. Some farmers in unirrigated regions near to large towns supplement their incomes by working in factories during the dry season, returning to the land before the rains of the monsoon start. Others find additional profits by going to the large towns, taking the money derived from their crops, and there purchasing popular commodities such as piece goods, which they sell in their own and neighboring villages.

The Government of India believes conditions are improving; they state: "Although there are good reasons for believing that an appreciable improvement has taken place in the standard of living of the Indian agricultural masses during the past quarter of a century, this represents only the beginning of what has to be accomplished. There is a vast amount of what can only be termed dangerous poverty in the Indian villages—poverty, that is, of such a kind that those subject to it live on the very margin of subsistence."*

The economic level of India is, however, rising. "Railway statistics, for example, show that even the poorest sections of the people can afford to travel much more than in the past. Again, cigarettes, mineral waters and other simple luxuries are now enjoyed by the masses. Savings bank deposits and membership in cooperative societies are continually increasing."†

If governmental and political stability remain, the economic condition of the people will continue slowly to improve. Great irrigation works are under construction. The Sukkur Barrage and canals in Sind, costing about \$70,000,000, will irrigate 5,500,000 acres. The Sutlej Valley works in the Punjab will cost about \$52,000,000 and irrigate over 5,000,000 acres. These, and other enterprises under way, are expected to add materially to the resources of the country.

The climate of the Indian peninsula is necessarily varied because of its great size. In California there is a wide difference between the climate of the northern high Sierras and the southern semi-tropical valleys. In the Indian peninsula the variations are even more marked because of the greater heights of the Himalayan regions and the truly tropical location of southern India. However, aside from the mountain regions in which but a sparse population resides, all of India is tropically hot for eight or nine months of the year. Southern India is hot during the entire year. Northern India, where fully half the people reside, is cool only from December to March. Thus, for market-

* India, 1927-28," p. 97, Government of India, Central Publication Branch, Calcutta, 1928.

† *Ibid.*, p. 95.

ing conditions, India must be treated as a tropical country in which imported fruits are subject to spoilage whenever and wherever exposed to the air. While an exception to this condition may be made for northern India in the cool months, this season is so brief that the practical marketing of fruits requires that they be packed, handled, stored and transported for all India as in a tropical country.

Fruit in the Indian Diet.—Because of the large numbers of races, religions and classes among the population of India and the wide area over which they are resident, it is difficult to phrase a general statement regarding the food habits and practices of the Indian people.

Generally speaking, the native diet is based upon rice. However, in the northern sections of India, such as in the Punjab, wheat takes the place of rice. In the poorer sections of southern India, corn or millet is used as a food grain, while among the still poorer classes the cassava or tapioca becomes the carbohydrate. The peoples in northern India on a wheat diet are physically superior to those further south on a rice diet. Whether this superiority is due to climate, to racial characteristics, or to food, is a question which has not been determined.

In the main, India is a vegetarian country. However, Mohammedans, who constitute 22 per cent of the population, freely eat all kinds of meat except pork, while the Hindus themselves are divided into two groups, namely, the vegetarians and the non-vegetarians. Of these latter there are in turn several subdivisions, namely, those who eat only fowl and others who also eat mutton and goat. None of the Hindus eat beef.

In general, all of the people of India eat without knives or forks, and usually without spoons. Food is usually so prepared that it can be readily eaten with the fingers. In parts of India, a flat, unleavened bread known as "chaupatti" is made from ground grain. This is used as a sort of scoop to assist in eating soft foods. Among most people of India, only two regular meals a day are eaten. Mohammedans build a fire twice a day, but the Hindus normally prepare only one hot meal. This usually consists of the rice ration, to which a curry is added. A stew of vegetables is made and as this cooks it is thickened with grain, the variety depending upon the district and the season. With this grain, various spices are used, the curry becoming more highly spiced in southern India than in the north. At the evening meal the menu is usually about the same as in the morning, except that a little fish may be added. Normally, among the masses of the people, even of the middle classes, meat is eaten seldom, possibly only twice a week.

India grows numerous vegetables throughout the entire year. The freshness of these vegetables largely determines their price. The diet is thus much the same among all classes, quality being the determinant factor. For example, in the markets of the large cities four standard grades of meat are sold, varying in price from 15 to 30 cents a pound. All this is exhibited as government inspected.

Above all, the Indian likes food cooked in "ghee." This is a clarified butter found only in India. After the butter is churned it is boiled slowly, thus settling out the sediment. The result is a clear residue known as ghee. This is acceptable to the diet of all Hindus, since it is not the result of the killing of any animal. The most popular method of cooking is to fry foods in ghee or mustard oil. A desirable dish is rice with a vegetable curry, over which is a liberal coating of ghee. Owing to the rapid rise in the price of ghee, due to the increasing demand for it and the small supply because of the poor quality of Indian cattle, a cocoanut butter substitute is now used extensively among those who find ghee unduly high in price. However, large numbers of people of the lower classes still use this commodity, which constitutes a considerable portion of their food expenditure. The price of ghee runs around 50 cents a pound.

In the great Gangeatic Valley and elsewhere in certain sections of India, people are inordinately fond of sweets. All meals among those who can afford it close with some sort of dessert. One of the most popular is clabbered milk, and another is sweetened rice, which is usually colored with "zurda," a yellow coloring matter used in foods. Yellow is the sacred color of India and the people are fond of bright colors on all occasions. At feast days, weddings, and similar events, desserts may even be covered with a silver or gold foil, intended to add to its attractiveness. Many candies are sold in the native markets; the sweeter these are, the better. These consist of almost pure sugar, with the addition of some flavoring.

People of all classes are fond of fresh fruit. Everywhere, however, this is regarded as a luxury, purchasable only by those of larger means, although during most seasons of the year fresh native fruits sell at low prices in the markets. If they can afford it, Hindus and Mohammedans alike are accustomed to eating fresh fruit at least once a day. In northern India, however, this is more likely to be eaten in the morning than at night. There is an old Bengali saying that "Fruits are gold in the morning, silver at midday, but lead at night." A quarter of a century ago more fruit was eaten because it was then cheaper and the diet was simpler. The rise in living standards among

the people, small as this may seem to the European, has noticeably affected their food habits, since it has opened to them types and varieties of food which were formerly not used among their group.

If necessary, the Indian is able to live on a narrow dietary under conditions which would seem impossible to a European. Working people of the lower classes may buy corn, millet, or other cheap grains which are ground with a mortar and pestle in the home. But little of the bran is removed from it. A small amount of this grain is tied in a corner of the gown and with this as a ration, they journey considerable distances from home. Owing to the system of Indian villages, the agricultural population frequently lives distant from the land which it cultivates. When food is necessary, the package of meal in the corner of the gown is untied and, using the gown itself as a receptacle, sufficient water is added to the grain to make a stiff dough to be eaten with the fingers. This uncooked meal becomes the food for the day.

An enormous number of Indians travel on the railways of the peninsula. The purpose of this travel is sometimes to seek work, often to make religious pilgrimages, but frequently only the desire to make a change. Hindus traveling on pilgrimages to wash in the sacred water of the Ganges are not supposed on these journeys to eat foodstuffs prepared by others until they have bathed in the holy river. They thus live on dried fruit and other foods carried with them.

Orthodox Hindus are not at any time permitted to accept cooked food prepared by others of lower caste or alien race. Dried food such as rice, dried fruits, and others, may be accepted by them without contamination. In the large cities and towns these customs of caste are noticeably breaking down. Owing to the general system of two meals a day and to the rice basis for the diet, people become hungry between meals and patronize the tea and coffee shops which in large numbers dot the towns of India. It is said that there are twelve hundred of these tea shops of larger size in the city of Calcutta alone. Although many of these shops are labeled as being for certain castes or races, all but the most orthodox are likely when in the city to patronize whichever happens to be convenient.

Among the upper classes, expenditures for food do not increase as rapidly as might be expected. On returning home, Indians educated in universities of Europe and America are likely to assume the same habits of life and of food practiced before they went away. Despite their acquired knowledge of bacteriology, they show no objection to eating foods prepared under conditions which would make them

impossible to the European, and do not hesitate to drink water from a village pond. Thus, the increasing education of the Indian race does not result in any appreciable tendency to turn to European standards of living in the cleanliness of food nor the kinds of products from which it is prepared. Clerks in stores and offices, and officials in minor governmental appointments, live little above the standards of those of the poorer classes from which they have perhaps risen. Surpluses of money may be spent for clothing and for occasions of show, such as weddings and funerals. The great purpose, however, of additional income is that it may be saved in order to provide a competency for the family in later years. Above perhaps all other races of the Far East, the Indian is a hoarder of money as a safeguard for the future.

The most notable exception is among the Parsis, most of whom are congregated in Bombay. This small group of coreligionists, totaling only about 100,000 in the entire world, have about 75,000 of their members in that one city. These have become widely known for their business sagacity, liberal scale of living, and wide philanthropy. They constitute, however, an exception to the general population of India, and because of their small numbers, are negligible in any broad consideration of the problem of marketing fruits in the Indian peninsula.

The European population of India, to whom may be added the half-castes known here as Anglo-Indians, constitute less than 300,000 persons. The Europeans live, of course, as nearly as possible as they would at home. Owing, however, to the low price of labor, servants, and native food products, and to many other factors, Europeans become accustomed to a low scale of expenditure. A purchase seems a larger outlay than it would at home at the same price. Therefore, luxurious foods are not bought as freely as in Europe or America. The additional charge of a few cents for a higher grade of product is often regarded as a sufficient reason why the lower grade should be used. Europeans generally do much of their purchasing through household servants. These are likely to buy native fruits, either fresh or dried, in preference to imported articles, because the price is lower. If the dried fruits exposed in the native markets are adulterated with pebbles and dirt, and have been visited by many flies, this is not evident when in cooked form they are served on the table. Thus, the European resident in India is likely to depend more upon Indian than upon imported foods, even though the latter are locally purchasable. In earlier days in India, imported foodstuffs were rarely obtainable and then only at exorbitant prices. Such a condition has long passed away, but the tradition remains.

Fresh Fruits.—The amount of American fresh fruit imported into India is so small as to be practically negligible. Up to the time this investigation was made, no steamship line carrying refrigerated cargo plied between American ports and the Indian peninsula. The small amount of fruit imported journeyed to London, where it was trans-shipped eastward around the world, or else came westward across the Pacific to Co'ombo, where it was trans-shipped by other lines to Indian ports.



Native fresh fruit is abundant and cheap in India throughout the entire year.

Native fresh fruit is, however, abundant and cheap throughout the entire year. Because of the varied climate of India, fruits of the temperate, sub-tropical and tropical zones are grown. Across all of northern India in the hill-valleys on the slopes of the foothills of the Himalayas, orchards of plums, apples, peaches, and grapes are planted in many localities. Some of these are the property of Europeans, retired from the Indian services, who have become established in the valleys as a retreat from the warmer country of the plains, and have there planted orchards of European varieties of fruits. In addition to these foothill areas, the Vale of Kashmir has for hundreds of years been famous for its fruits. Owing to the opposition of the ruler, no railroad enters the country, but a large amount of fresh fruit is transported by cart for distances of 150 to 300 miles over rough roads to railhead where, by ordinary freight, it comes down to the centers of

population. Necessarily the fruit must be picked when it is hard and green. On the plains are grown mangoes, oranges, lemons, limes, figs, and other fruits characteristic of sub-tropical regions. Since these are in proximity to large centers, they reach the market in better condition than some of the fruit from the distant foothill valleys. Europeans are insistent, however, that during recent years apples, peaches, and pears of Indian production are frequently of excellent quality, because of the introduction of better stocks and because the farming is frequently under the proprietorship of Europeans.

Mangoes are grown on a large scale in the Bombay Presidency and grapes are extensively grown in Mysore. The whole population is inordinately fond of mangoes. Grapes are also popular, since they are supposed to be strengthening. They are sold in native markets in small quantities, purchasable for the equivalent of an American cent. Bananas are cultivated in parts of the Madras and Bombay presidencies and in the neighborhood of Calcutta. In the Central Provinces the orange industry is of importance.

No figures are available as to the total fruit acreage of India. Fruits, vegetables, and root crops are all grouped together in the official statistics of the Government of India. In 1925-26 there were of these 5,173,000 acres in British India (not including the Native States).^{*} How much of this was fruit is unknown. Certainly, however, the acreage in India is considerable.

A recent commission on agriculture has studied the problem of the development of farming in India. Among the findings of this commission was the conclusion that "fruit growing can seldom be combined with ordinary cultivation by the small cultivator and that he is faced with serious financial and other difficulties in regard to the transport of fruit and other vegetables."[†] The report further emphasized that before fruit growing is promoted in India, "investigations into transport and marketing should form an essential part of any policy of active encouragement."

The prices of native fruits vary, of course, in different seasons and in different places. For example, in Assam oranges in season sell for 10 cents a hundred. Growers sometimes harvest their crop by selling it on the tree at one rupee (37 cents) per tree. The poor methods of marketing, packaging, and transportation cause great variation in prices, dependent upon the distances the goods travel to the consumer.

^{*} "Present Position of Fruit Culture in India." Unpublished Report of C. B. Spofford, Jr., Trade Commissioner, Calcutta, 1928.

[†] Report of the Royal Commission on Agriculture in India. 1928.

The following prices secured in the markets of Calcutta and Bombay are, however, representative of those paid for native fruits by the large consuming population of these two cities, each of which has over a million population.

TABLE 64
NATIVE FRESH FRUITS, BRITISH INDIA

	Seasons	Average Prices at Retail in Calcutta and Bombay
Khubance.....	All year	18c per pound
Mangosteen.....	All year	2c for ten
Pesta.....	All year	50c per pound
Pineapple.....	All year	5c to 15c each
Plantain (banana)....	All year	10c per dozen
Papaya.....	All year	5c to 10c each
Pomelo.....	All year	10c to 23c each
Sweet lime.....	All year	½c to 1c each
Sour lime.....	All year	½c to 1c each
Pomegranate.....	All year	37c per dozen
Fig.....	All year	10c to 16c per dozen
Chico.....	All year	1c each
Orange.....	All year	10c per pound
Custard apple.....	Jan.-June, Aug.-Sept.	½c to 1c each
Alobokhara.....	Jan.-Feb.	18c per pound
Mango.....	Mar.-Sept.	1c each
Sofata.....	Mar.-Sept.	18c per hundred
Kessur.....	May-Aug.	18c per pound
Apple.....	May-Mar.	½c to 1c each
Apricot.....	June-July	9c per pound
Peach.....	June-Aug.	½c to 1c each
Bael fruit.....	June-Aug.	4c to 6c each
Grape.....	June-Feb.	4c to 6c per pound
Lichis monkey.....	June-July	18c per hundred
Tamarind orange.....	Oct.-Mar.	2c to 3c each

Imported fruit for the occasional use of Europeans and a few rich and sophisticated natives, comes to India from many sections of the globe. Because India is a British possession it is natural that the steamship lines are predominantly those running between India and other parts of the Empire. The result is that imported fruits are largely from countries under the British flag. An exception to this, however, is the fruit from Japan which, because of its low price, has found a place in this market.

In January, 1930, apples from Japan sold in Calcutta at wholesale for 9 cents a pound. At retail they were 9 cents each. Smaller Japanese apples sold for 7 cents a pound and retailed for 6 cents each. Meanwhile in Calcutta apples from Australia wholesaled at 9 cents

a pound. In Madras they were 10 to 12 cents a pound, retailing at 20 cents a pound. In Calcutta they retailed at 10 to 20 cents a pound, while in Bombay this price had increased to 30 cents a pound. Beside them were apples from South Africa. These wholesaled in Bombay at 11 cents a pound and retailed for as high as 37 cents a pound. Thus, at the same time, apples were on sale from three widely separated sections of the globe. American apples were found on sale only in Bombay and Madras at that time. At wholesale, 200 to the box, they were \$7.40 a box. Earlier in the season in Calcutta, they were \$4.50 to \$5.00 a box. At retail in Bombay they were sold at 24 cents a pound; at Madras they were 25 cents a pound.

Excellent oranges from Jaffa in Palestine ranged in price at wholesale in Calcutta and Madras from 36 to 48 cents a dozen. In Bombay they were 41 cents a dozen. At retail they were on sale in Calcutta at from 40 to 75 cents a dozen; in Bombay at 55 cents a dozen; and in Madras at 50 to 60 cents a dozen. California oranges, packed 120 to the box, wholesaled at \$8.14 a box and retailed at 74 cents a dozen.

Grapes from Australia wholesaled at 11 cents a pound in Calcutta. At retail they were 37 cents a pound in Calcutta and 40 cents in Bombay and Madras. Competing with them were grapes from Spain, which at wholesale were 22 cents a pound in Calcutta and Madras, and 20 cents in Bombay. At retail these were offered at 55 cents per pound in Calcutta and 40 cents in Bombay. No American grapes were found on sale, nor were sales reported.

Lemons from both Palestine and Italy were offered for sale at identical prices. At wholesale these were 1 cent each in Bombay and 2 cents each in Calcutta. At retail the prices were exactly doubled in each case.

Pomeloes from British Malaya were wholesaled in Calcutta at 9 cents each and retailed at 12 cents. Grapefruit from Palestine wholesaled at 10 cents each in Bombay and retailed at 13 cents. In Calcutta the retail price rose to 23 cents. American grapefruit, packed 100 to the box, wholesaled from \$11.50 to \$13.00 a box. The fruit retailed in Calcutta at 13 cents each. None was on sale in Bombay. The Jaffa grapefruit was obviously of quality superior to that from America.

Pears from South Africa wholesaled in Bombay at 7½ cents each. At retail the price was from 13 to 16 cents each.

The above prices show great differences between the wholesale and retail levels. Obviously, the retailer exacts a wide margin to insure

his profits and to cover possible losses from spoilage on fresh fruits. The demands are so small that retailers undertaking to merchandise imported fresh fruits do so only when possible risks may be covered by adequate margins of safety.

No statistics are available as to the amounts of fresh fruit imported into India from other sections of the world. Not only are all fresh fruits lumped together in the import statistics, but vegetables are also grouped with them. The "Annual Statement of Sea-borne Trade of British India with the British Empire and Foreign Countries" lists fruits and vegetables in one single classification. It is evident, however, that the amounts imported are small. Considerable effort was made to find imported fresh fruit in large cities in the interior of India. Usually none whatsoever was on sale. Even in the great port cities of Calcutta and Bombay, fresh imported fruit was offered by only a few of the highest class stores catering to Europeans, and by a few of the best stalls in the bazaars which held a similar trade. Even in these the stocks were so small as to clearly indicate the limited sales that were made.

Fresh fruits from America are generally imported into India on the basis of a c.i.f price, whereas fresh fruits from Jaffa, Italy, Spain and South Africa are usually shipped on consignment. Brokers charge 10 per cent for their selling services. After deducting all charges, they remit the balance that remains. Apples have the largest demand, grapes ranking second. Except among a very limited group of Europeans, imported citrus fruits are not used, because of the low price of the native citrus fruit.

Refrigerated freight rates on fresh fruit from California ports to Calcutta are as follows: apples, \$1.30 a box; oranges, \$2.00 a box; lemons, \$2.15 a box and \$1.00 a half box; grapes, \$32.00 a ton; other fresh fruit, \$35 a ton.

Imported fruit landing in India is subject to an import duty of 15 per cent. It is further subject to harbor dues, which at Calcutta are 2 cents on the dollar valuation. At Bombay, harbor dues are 14 cents per case. Truck and coolie hire at either Calcutta or Bombay average 9 cents per case. At Calcutta the brokerage charge to clear through customs is \$1.48 on each shipment. At Bombay it is 3½ per cent on the valuation. Interest on drafts, for goods ordered from California is usually 7 per cent from the time the fruit is shipped until the draft is paid.

Cold storage space for fresh fruits is decidedly limited. One organization at Calcutta has space for about 2,000 cases available for public

rental at 23 cents per case per month. Three firms at Bombay have a combined total space for 1,000 cases which they will rent at 6 cents per case per week. Several retail stores have small spaces for their own storage but these are not open to public rental. In Madras one company has refrigeration storage space for 100 cases which they rent at the rate of $4\frac{1}{2}$ cents per case per day. Larger cold storage spaces are repeatedly rumored as under contemplation in Calcutta and Bombay. The prejudice of the natives of India against cold storage is a factor that will have to be considered in any large cold storage enterprise.

There are no refrigerator cars on the railways of India. Although for several years it has been privately stated that the Railway Administration stood ready to install refrigerator cars as soon as needed, no action has been taken. In the present state of political uncertainty of the country, it is doubtful if any immediate action is probable. Such installation would affect the distribution of the higher grades of native fruit quite as materially as that of imported. Refrigerator service is likely to increase the shipment of fresh native fruits over India and to thereby increase the competition with imported fruits. Under refrigeration, native fruit should reach the large consuming centers in better condition than at present, and thereby lessen the apparent disparity in quality between the home-grown and the sea-borne fruit.

There is no difficulty in educating the Indian to eat American fruit. The difficulty is one of price. The possible expansion of markets for imported fresh fruit in India is limited by (1) the low buying power of the very large majority of the population, (2) by the small expenditure which even rich natives are willing to make for foodstuffs, (3) by the competition of native fruits of fair quality, which competition is likely to increase as better transportation becomes available, and (4) by the difficulty of adequate distribution.

Despite all these limiting factors, there is a substantial demand for imported fruit, provided the price is within reasonable limits and the fruit is of high quality. A number of widely separated sections of the globe are anxious to supply this demand. South Africa and Australia from within the British domains and Palestine under British mandate, are likely to find first place in this market, both because of their affiliation with the ruling race and because the haul to the Indian peninsula is shorter than that from the American continent.

The expansion of American markets depends upon quality and price. India offers distinct competition in fresh fruits, both from

India itself and from other sections of the British Empire. Fruit, as fruit, is in India in abundance. It is there in all kinds and varieties. Imported fruit from America can find sale only on the basis of superior quality at a price not too greatly increased over that of competing sections of the globe. If any material markets are to be developed for American fresh fruit, the prices must be lowered to meet competition. Even then, the market can not be indefinitely expanded because of the very small number of wealthy persons who are willing to spend their money for imported fresh fruit when native fruit of fair, though inferior, quality is so cheap and abundant.

Canned Fruits.—With the exception of a few wealthy Indians, canned fruits are practically unknown to the native population of the Indian peninsula. Nothing in their diet approximates canned fruit, so that an effort to popularize it among the native population, even of the higher classes, would constitute a major problem in dietary education.

Europeans in India, of course, consume canned fruit in reasonable quantities. Even they, however, use it in lesser amounts than might be assumed. Its relatively high price as compared with fresh native fruit limits its sale. Canned fruit at present prices is recognized as a distinct luxury. Even in the best hotels it is infrequently served and usually then only to augment some lower priced dessert. Missionaries and others on smaller incomes find imported canned fruits beyond the range of their food expenditures.

Nevertheless, India in the aggregate consumes considerable quantities of canned fruit. The country is so large and the population so numerous that any consumption whatsoever among even a very minute percentage of the people aggregates a material amount. The total imports of "canned and bottled fruits from foreign sources" into British India in the year 1927-28, all of which are grouped together in one classification, totaled a value of \$362,730. Of this, imports from the United States were valued at \$140,384. The American statistics showed exports from California to British India aggregating \$154,755 in 1927, and \$173,089 in 1928 (see table 61). This would perhaps represent sales of about 24,000 cases per year in all India. However, those in the business in India state that sales of American canned fruits total about 50,000 cases a year. This discrepancy is perhaps accounted for by the fact that large amounts of American canned fruits are trans-shipped either at London or at Hongkong or Singapore. They are not credited, therefore, in the American state-

ments of exports to India nor in the British tabulations of imports into India from America. The United States imports, direct and indirect, of canned fruit into India probably amount to somewhere between two-thirds and three-fourths of all that consumed in the country.

India has no extensive fruit-canning industry of its own. Several canning plants have, from time to time, been established under the patronage of the Indian government. Due to various causes, these have all proved unsuccessful, although several small plants that preserve mangoes are still in occasional operation. "The tropical climate of the country, an absence of scientifically-grown fruit gardens, the location of most gardens far remote from consuming centers, and the high cost of transportation are some of the factors retarding any efforts on the part of private enterprise to pack locally."* The government of the Madras Presidency established a "Fruit Preserving Institute" which lapsed after a term of years. An official report states that "there have been heavy imports of cheap bounty-fed Australian jams and preserves with which the institute is quite unable to compete at the same price . . . It is perhaps doubtful whether the comparatively tasteless Indian fruits are particularly suitable for the manufacture of preserves."† India is unlikely to establish any considerable fruit canning industry for a long time to come.

Canned lichees and longans are imported from China to India in small amounts for use of the Chinese population. French canned fruits come to India in small quantities. Aside from American fruits, the principal importations are those of English and Australian brands which sell extensively in these markets. For many fruits even these, branded as they are with English or Australian labels, are only California products under another name. The labels definitely, if not conspicuously, state for certain brands of peaches, pears, apricots, and fruit salad, that the contents were "packed in California, U. S. A." Thus the consumption of American fruits is larger than the sales of American brands.

Among the various kinds of fruits, peaches rank first in popularity. Perhaps almost one-half of the sales are of this one fruit. Pears rank second, cherries third, and apricots fourth. The mixed fruits, known as fruit salad, sell in quantities exceeded only by that of peaches.

* Unpublished Report, "Indian Market for Canned Fruits," R. C. Cockburn, Assistant Trade Commissioner, Calcutta, 1929.

† Report of the Dept. of Industries, Presidency of Madras. 1925-6, pp. 35-36.

Canned fruits are found on sale in all the large cities and are even offered in those smaller towns where a military cantonment congregates a number of Europeans. Usually, however, canned fruits are sold only in stores and markets that have a regular European trade. In markets patronized exclusively by Indians, canned fruits are conspicuously absent. In some cities of 100,000 population, American canned fruits were offered for sale in but one or two shops. It was plain that they were stocked only in the expectation of European consumption. Many railroad restaurants display various foodstuffs



Most retail purchases in India are made in very small shops. Usually only shops that cater to Europeans sell American canned fruits.

for sale in cartons and packages. Usually these include a display of American canned fruits. They are intended for sale to railroad officials, stationed at that point, rather than to the traveling public. The owners of these restaurants report very small sales from these displays. Canned fruits are not consumed by the natives except by the Parsis of Bombay and by a few Europeanized persons who have become more than usually influenced by Western customs.

The prices of canned fruits rise rapidly as the distance from the ports increases. This is doubtless caused not only by the freight rates involved, but also by lessened demand which means infrequent sales and less competition. In some cases, canned fruits were on sale at prices clearly beyond those warranted by their cost. Table 65 illus-

brates the range of the retail prices for fruit in No. 2½ cans at various points in India. These prices were averaged from those prevailing in a number of stores in the towns visited.

TABLE 65
CURRENT RETAIL PRICES, BRITISH INDIA, JANUARY, 1930
AMERICAN CANNED FRUITS
In No. 2½ Cans

	Calcutta	Benares	Agra	Delhi	Lahore	Bombay	Madras
Apples.....	\$0.37	\$0.37	.....	\$0.50	\$0.50	\$0.41	\$0.39
Apricots.....	.37	.37	.....	.55	.55	.41	.46
Cherries.....	.50	.50	\$0.55	.60	.74	.50	.55
Pears.....	.41	.39	.41	.55	.55	.43	.48
Peaches.....	.32	.37	.37	.43	.50	.37	.41
Plums.....	.37	.....	.....	.55	.....	.37	.37
Grapes.....	.41	.....	.....	.50	.....	.46	.....
Fruit Salad.....	.50	.57	.50	.64	.74	.50	.50

Similar tables could be presented for other sizes of cans. For example, cherries in the No. 1 tall can sold at 32 cents at Calcutta, Bombay, and Madras, but at 46 cents at Agra, while in the nearby city of Delhi they were 37 cents. Peaches in this size were 23 cents at Calcutta and Madras, and 25 cents at Bombay, but only 23 cents at Agra, while they rose to 29 cents at Delhi and Lahore. The 8-ounce tins of peaches and apricots were 13 cents at Calcutta and Bombay. They were 16 cents at Delhi and Madras. All of these figures would, however, only substantiate the obvious conclusion that small sales mean high prices. Dealers operating on infrequent turnover and under small competition charge prices large enough to insure themselves against probable losses and to cover a substantial margin of profit. Probably not more than 10 per cent of the canned fruit received in India is consumed outside of the large port cities where most of the European population of higher purchasing power is congregated. The removal of the capital of India to Delhi will, however, bring larger consumption to that city.

A prominent Australian brand of canned fruits sells extensively on the markets of India because its prices are lower than those of the competing American brands. Much of the fruit packed under this brand is purchased already packed in America and marketed under the label of the Australian brand. Its sales are considerable, not because of superior quality but because of lower price. Even though

it be contended that the quality is at times uncertain and occasionally inferior, many European consumers stated that they held to this brand because it was cheaper and the fruit was satisfactory.

TABLE 66
RETAIL PRICES OF VARIOUS BRANDS, BRITISH INDIA, JANUARY, 1930
In No. 2½ Cans

	Calcutta			Bombay		
	American brand "A"	American brand "B"	Australian brand	American brand "A"	American brand "B"	Australian brand
Apples.....	\$0.37	\$0.37	\$0.32	\$0.46	\$0.41	.....
Apricots.....	.41	.37	.27	.41	.41	\$0.34
Cherries.....	.50	.50	.41	.53	.50	.....
Peaches.....	.37	.32	.27	.41	.37	.27
Pears.....	.46	.41	.32	.46	.43	.34
Plums.....	.41	.37	.27	.46	.37	.37
Fruit Salad.....	.50	.50	.46	.55	.50	.46

The same prices were reflected in the wholesale quotations. While in some cases the wholesale prices were actually higher than the proportionate retail price, this was caused by the fact that retailers generally were operating from old stocks of the 1928 crop, and although aware of the fact that replacement of these stocks could only be obtained from the 1929 crop at higher prices, the old retail prices prevailed because of the desire to convert stocks into cash. At higher prices sales might decrease or cease almost entirely.

TABLE 67
WHOLESALE PRICES OF VARIOUS BRANDS, BRITISH INDIA, JANUARY, 1930
In No. 2½ Cans. Prices per Case

	Calcutta			Bombay		
	American brand "A"	American brand "B"	Australian brand	American brand "A"	American brand "B"	Australian brand
Apricots.....	\$ 9.24	\$ 7.20	\$ 6.10	\$11.24	\$ 8.78	\$ 7.02
Cherries.....	11.46	11.10	9.98	11.85	11.10	9.98
Peaches.....	7.76	7.20	6.38	8.88	7.95	7.02
Pears.....	9.98	8.50	7.02	11.10	9.98	7.76
Fruit Salad.....	11.46	11.10	10.36	11.51	11.10	10.36

All of these figures are cited merely to illustrate the fact that American fruits under an Australian brand are selling extensively in India at prices lower than those of the prominent American brands.

Now, India is pre-eminently a price market, not only among the natives but also among many of the Europeans to whom the question of price is more important than fine distinctions of quality. At the comparative prices quoted above, sales under this Australian brand are likely to continue to increase.

The greatest volume of sales of all brands is in the No. 2½ cans although the No. 1 tall size is prominently displayed in most large stores and finds some usage among small families. So seldom is canned fruit used for occasions when families are not entertaining guests that the large can continues to rule the market, despite the fact that European families in India are small. The price of even the No. 1 tall size has been generally beyond the regular expenditure of many Europeans. The use of canned fruits is thus reserved for entertainment and for other occasions where desirable but expensive luxuries are consumed. The small 8-ounce can has been recently introduced into the market. As yet its sales are small. The price differential between this size and larger packages has prevented its extension. Furthermore, no advertising or trade promotion has been conducted for the new package, so that many Europeans do not know that it can be obtained. Indeed, at most interior towns, it is not on sale. Stores having only small demands for canned fruits usually stock only one size, in which case the No. 2½ size is the one carried.

American canned fruits are imported into India on the basis of orders taken by agents of American exporters who quote to dealers c.i.f. prices. These agencies usually represent a large number of manufacturers among which one brand of canned fruit is included. In eastern India, canned goods usually enter through the ports of Calcutta or Madras. The territory from which they are distributed from Calcutta extends as far westward as Delhi. The port of Madras distributes for the eastern side of southern India. In western India goods usually enter via Bombay or Karachi, coming by way of Europe and Suez. Wholesale dealers receiving canned fruits from import agents distribute these to retailers. So large a proportion of the canned fruit is purchased by Europeans from a few large provision stores in the big cities, that in many cases these retail stores, which often have numerous branches, themselves order direct from agents on a c.i.f. price, thus eliminating the wholesaler. Goods are sold to up-country dealers at f.o.b. prices at the city of entry. Freight rates from Calcutta to such places as Benares and Patna Junction average less than 1 cent a pound. To Delhi, Agra, Lucknow, and Cawnpore they average 1 to 1½ cents a pound. From Bombay, freights vary

from $\frac{1}{3}$ cent a pound for Poona to over 2 cents for Bangalore, Bezwada, and Guntakai.

To successfully market a large volume of canned fruit in India, several factors are involved. (1) Prices must be made lower. At present prices, neither the European nor the Indian population will greatly increase consumption. (2) The small sizes, such as the 8-ounce and the No. 1 tall, must be widely placed on sale. (3) An extensive campaign of trade promotion must be conducted over a considerable period of time. The Indian market reacts slowly.

The most promising field appears to be for the 8-ounce can. If this could be reduced in price so that it could be retailed for four annas (10 cents), it might have considerable sale, provided it were exploited by extensive trade promotion through methods later discussed. Even so, the outcome is by no means certain. More than in other Eastern countries, the probable trend of native demands is an unknown factor. Because no considerable percentage of natives use canned fruits, no measuring stick is available to judge the possible effect of a campaign seeking to educate them to this commodity. Up to the present time no efforts have been made, so that results, either positive or negative, have not been secured. The best-informed people in India believe that a campaign for a low-priced package might have large results, provided it were skillfully managed and were prosecuted over a term of years.

Dried Fruits.—The Indian market consumes large amounts of dried fruits. These are chiefly of Asiatic origin and come into India from the Northwest. Their low price permits their use among the native population which, for ages past, has been accustomed to regard them as a desirable luxury. Dates from Arabia; apricots, currants, figs, and raisins from Afghanistan; apricots from the northern Punjab; all are prominently displayed in the native bazaars.

Many of these fruits travel by caravan routes across the countries of the Near East, till coming over the passes into British India, they meet rail lines whence they are shipped by freight to the consuming markets of the Indian peninsula. At the original source of production the prices of dried fruits are indeterminate. Sales are frequently made by barter against goods brought by caravan from India. On return these caravans carry dried fruits among other stocks obtained from the interior. The fruit is usually packed in gunny sacks and in this manner is loaded on horses and camels. It remains in these sacks till it is dumped out in the bazaars, where it is displayed in large piles on the summit of which the proprietor of the stall sits cross-legged in

the typical attitude of the East. Naturally, these dried fruits from the interior are far from clean. Furthermore, they may be adulterated with pebbles and dirt. Nevertheless, their appearance is not unattractive as they are displayed in the markets.

The native of India has no sanitary scruples against the use of these fruits. Indeed, to the Mohammedan population as well as to



The Indian market consumes large amounts of dried fruits of Asiatic origin. These come into India from the Northwest. On stands selling dried fruit a native cocoanut candy is prominent.

many of the Hindus, they have a mystical attraction because they came from the direction of Mecca and from the fabled Northwest whence came the migrations and conquerors of old. Probably, however, their attraction over American fruits is largely in their low price. When sentiment and saving can be combined, they are an irresistible combination to the Indian mind.

Dried fruits from Afghanistan sell as follows: The dried apricots retail in Lahore at 11 cents per pound. In Bombay they are 16 cents

and in Calcutta and Madras, 18 cents. The currants sell for 13 cents a pound in Lahore, while in Bombay they are 16 cents, and in Calcutta and Madras, 18 cents. The raisins are 11 cents per pound in Lahore; at Bombay they are 13 cents; at Calcutta 11 cents; at Madras 18 cents. Dried figs are 11 cents in Lahore and 13 cents in both Bombay and Calcutta, but are 18 cents in Madras.

Dried fruit from Arabia sells as follows: Dried dates are 9 cents a pound in Lahore, Bombay, and Madras, but rise in price to 16 cents in Calcutta. These are the true dried dates, not the block dates familiar in former years on fruit stands in the United States. The amount of these displayed for sale increases with the distances westward.

Apricots from the Punjab sell for 11 cents a pound in Lahore. They are 13 cents in Bombay, and 18 cents in Calcutta. Currants from Greece are 18 cents a pound in Bombay, Calcutta, and Madras.

Meanwhile, Australia sends dried fruit for the European trade. Australian currants sell for 18 cents a pound in Bombay, Calcutta, and Madras, thus meeting the price of the same fruit from Greece. Australian raisins are 11 cents a pound in Calcutta, but rise to 18 cents in Bombay and Madras. At c.i.f. prices, Australian seedless raisins reach Calcutta for 9 cents a pound. Similarly, high grade white-bleached Sultana raisins of a quality that cannot be exceeded cost c.i.f. 11 cents a pound.

American dried fruits in cans, cartons, and in bulk are for sale in all large cities. Sales are largely in tins because of the danger of spoilage. Usually, these are sold only to Europeans because the prices are so much higher than those of the Asiatic dried fruits. Even many of the white race use the local products because of their lower prices. They would much prefer to purchase the cleaner and well-packed fruit from America, but contend that since the dried fruit is thoroughly washed before it is prepared, the result is reasonably satisfactory. The only American dried fruit selling extensively to the upper-class natives is prunes. This is largely the result of the advocacy by European physicians of prune juice for babies and prunes as a measure for health. The volume of prunes imported into India exceeds that of all other dried fruits combined. In southern India these are often eaten dry out of hand. Even a small native use of one of our fruits creates a large percentage increase in imports. Retail prices of American dried fruits are given in table 68.

Comparison between these prices and those of the Asiatic fruits shows a wide disparity. Attempts to get the native population to eat American dried fruits will not meet large success so long as the same

TABLE 68
CURRENT RETAIL PRICES, JANUARY 1930, AMERICAN DRIED FRUITS
BRITISH INDIA
Prices per Pound

	Calcutta			Bombay			Madras		
	In tins	In cartons	In bulk	In tins	In cartons	In bulk	In tins	In cartons	In bulk
Apples.....	\$0.48	\$0.69	\$0.69	\$0.46	.....	\$0.46	\$0.46	.....	\$0.50
Apricots....	.53	.....	.....	.46	\$0.55	.55	.60	.....	.64
Peaches....	.41	.....	.50	.46	.55	.55	.46	.....	.55
Pears.....	.23	.18	.....	.46	.....	.55	.48	.....	.55
Raisins.....	.23	.18	.....	.....	.23	.....	\$0.19	.....	.....
Prunes.....	.23	.....	.27	.23	.....	.46	.27	.....	.32

or comparable fruits produced in Asia sell for much lower prices. The difference in price between American and Asiatic fruits is even more marked in the interior than at the ports. Whereas American fruits become more expensive as they are carried inland, Asiatic fruits become cheaper. For example, at Calcutta, American dried apricots were 53 cents a pound; native apricots were 18 cents. At Lahore, American apricots were 55 cents, native apricots were 11 cents.

American dried fruits are ordered on indent through agents of American packers. These sell on the basis of c.i.f. quotations at the ports of entry. Via the Pacific, freight rates per ton of 40 cubic feet, from California ports to Calcutta are \$20, and to Madras \$20. Shipments to Bombay and Karachi are generally made via the Atlantic, in which case the rate is \$1.10 per 100 pounds. Dried fruit pays a duty of 15 per cent on entry into British India. Harbor dues are 2 cents a pound at Calcutta and 14 cents a case at Bombay. Other charges are similar to those for canned fruits, already given. Dealers in interior cities have the above charges to pay in the form of wholesale prices, which not only include these costs but also the profit of the wholesaler.

In January, 1930, wholesale quotations in Calcutta, Bombay, and Madras were as given in table 69.

In some cases the above prices are higher than retail prices. As usual this was because wholesalers were quoting from the 1929 crop, while retail sales were being made from the 1928 crop.

The inland merchant must also pay rail charges as the wholesale prices are f.o.b. Calcutta or Bombay. In addition to freight rates, which are the same as those already quoted for canned fruits, there

is usually a local city tax analagous to an import duty. For example, at Lahore this tax is 37 cents per 82 pounds. Probably not more than 10 per cent of the American dried fruit entering India is shipped beyond the port of entry.

TABLE 69
CURRENT PRICES AT WHOLESALE, JANUARY, 1930, AMERICAN
DRIED FRUITS, BRITISH INDIA
Prices per Pound in Tins

	Caleutta	Bombay	Madras
Apples	\$0.47	\$0.38	\$0.37
Apricots .....	.50	.50	.48
White Figs .....	.44	.43	....
Peaches .....	.31	.50	.32
Prunes .....	.17	.20	.15
Raisins .....	.17	.18	.16

Under present conditions, the opportunity for large sales of American dried fruits is not brilliant. Prunes present the best field for any intensive effort that might be made. Their attraction lies in the consideration that they are not extensively produced in India and that an appeal might be based upon their medicinal value. India does produce small quantities of prunes, but these are very dry and are largely pit. In India as in other countries where a rice diet pertains, constipation is general. Furthermore, much of India is underlaid with a limestone formation. The water is 'hard' all over the country. From these combined causes, chronic constipation is a frequent incident of illness among the whole population, including Europeans. In addition, all India has become greatly concerned over the question of its high infant mortality and the low strength of the Indian people. The publication of recent books, widely read throughout the world, criticizing this phase of Indian life, has roused the people of the whole peninsula to a degree seldom reached in recent generations. All large towns now hold "Baby Weeks." Free clinics for young mothers are multiplying throughout the country. Manufacturers of infant foods and of oat and wheat cereals are extensively promoting the knowledge of their products through these media.

Dried prunes would really fill a need in the Indian peninsula, but this need would be more largely medicinal than nutritional. However, in order to gain any large consumption among the Indian people, prunes must be packaged in small containers of about a dozen fruits and offered at a low standard price, or must be sold at still lower prices in bulk in the bazaars under some method of control whereby

the price is not allowed to rise above a level at which they could be purchased by the middle classes of the population. Furthermore, it would be necessary to maintain stocks at central depots in order to obtain wide distribution. Finally, the Indian people must be informed that prunes will be an aid to the health and strength of their families.

Other dried fruits offer little opportunity for marked expansion unless their retail price is brought much nearer to that of the same fruits produced in Asia or other countries. The entire European population and a small number of Indians would undoubtedly be willing to pay a slightly higher price for clean American fruit attractively packaged than for dirty Asiatic fruit sold in bulk. But they are not, in any large numbers, willing to pay too great a differential. Indeed, the number of natives of India who are willing to pay anything whatsoever for cleanliness of foodstuffs is relatively small.

Trade Promotion Methods.—Fresh imported fruits present only a very limited opportunity in the Indian peninsula and therefore do not lend themselves to extensive trade promotion methods. Any commodity that is to repay in sales the cost of expensive public exploitation must be capable of purchase by a great number of persons. Fresh fruits, landed in the large cities of Calcutta, Bombay, or Madras will find a limited outlet. They will be adequately made known among the high-class trade, to whom alone they can appeal, by the dealers who purchase them. Apples, grapes, pears, and even citrus fruits can be sold in sufficient quantity to interest fruit exporters and shippers as individuals. They cannot be marketed in large enough quantities in India to warrant any considerable campaign.

Canned fruits might have very much larger sale if they could be made fashionable for the better-class natives. How many there are in the upper and middle classes is difficult to determine. Even if all the rural population be eliminated from discussion and we consider only the 32,500,000 people who live in towns and cities, the number among this group who might afford to purchase a low-priced but desirable luxury is considerable. Because there are no statistics showing the economic status of the various groups of the population, estimates were secured from a wide range of sources as to the percentage of those in towns and cities who could afford to buy an 8-ounce can of fruit that sold at retail for 10 cents. Curiously enough, here, as in China, the lowest estimates were made by agents of American packers. The highest estimates were made by social workers and by those large corporations which are already merchandizing to the native trade. Estimates ranged from 5 per cent of the city population to as

high as 25 per cent. All agreed that an even higher percentage could afford to buy these fruits occasionally, such as at times of weddings and other festivals. However, the population of the towns would not be the only people who might be reached. In India as elsewhere, the rural people are likely to follow the lead of those in the towns. Probably in country districts those who make up the middle class are a very small percentage of the rural population. In the aggregate, however, they must constitute a considerable number of persons.

Canned fruits in India might appeal to the native population because of their sweetness, and because of their novelty. Obviously, however, as already stated, a promotional campaign to popularize canned fruit in India would require large funds and sustained effort.

Dried fruits face the competition of native dried fruit in all varieties except prunes. Fortunately, the prune is the one American dried fruit which might appeal to the native trade, because of its medicinal properties. As such, it presents large possibilities provided it were advertised and exploited as nature's health food for the people.

A trade-promotion campaign for any of these fruits, dried or canned, would require for its success the application of certain principles.

First, stocks must be carried on hand at certain central points in India. The system of indent through agents cannot develop a large market.

Second, the commodity must be packaged in a small unit so that only a small initial purchase need be made. The unit of popular currency in India is the anna. Sixteen of these make the rupee, worth 37 cents. The 2-anna piece and the 4-anna piece are popular coins. If prunes could be packaged so as to sell for 2 annas and canned fruit for 4 annas, the middle class would find these within their range of possible purchase.

Third, there must be as much for the money as possible. Expressed in another way, the commodity must be made as cheap as possible. The more prunes that can be put in a 2-anna package the better. The less the 8-ounce can of fruit can retail for, the more probable it would be to succeed.

Fourth, a thorough and prolonged campaign of education and exploitation must go forward after the stocks are on hand and the distribution accomplished.

For example, if we assume that a campaign is to be conducted to popularize dried prunes in India, it should start by laying down stocks at the central points from which the campaign is to be con-

ducted. Packaging in small units might be done in India. It must be done wherever the cost is the lowest. Dried fruits packed in cartons and laid down in India without the protection of tin or some other impervious covering will spoil from insect injury and, in the monsoon season, from molds. Tin containers, such as small vacuum cans, are too expensive for the Indian market; therefore, the small carton must be used. Prunes might be shipped into India in tin-lined cases and there packaged in small cartons as needed for distribution. These small packages might be packed in a tin-lined case. This does not necessarily increase the price to the consumer. A popular brand of cheap tea is packed in paper envelopes which in turn are enclosed in quantity in a tin box with a hinged lid. This tea retails at slightly less than a cent a package. The profit of the dealer is the tin case. He is compelled to sell the tea at the exact price that he pays for it. The price at retail is printed on the package. If the tea were not packed in a tin case, it would have to be sold to the dealer at a price as much lower as the resale value of the tin box. The dealer takes his profit in box instead of money.

After the commodity is on hand and properly packaged to meet the market, distribution must be effected through an organization employed for this purpose and for no other. Such an organization should be headed by an American or other Caucasian who is thoroughly familiar with the people of India. This not only means that he must have been resident in India over a period of years, but also that his work and sympathies have brought him close to the Indian people. There are many European businessmen long in India who know nothing about the natives whatsoever. Indeed, some pride themselves upon that fact as though there were some virtue in an ignorance of the consumers to whom they are catering. The main basis of such an organization, however, should be native. Indians should be employed to do the work of distribution but not to make decisions or to dictate policies.

Before any extensive advertising or trade promotion is done, the commodity should be placed on sale at a large number of places. At first, to do so might require that it be packed in smaller cases than those usually standard. It might also be necessary to promise that an advertising and trade-promotion campaign would follow immediately after distribution. In some instances it might even be necessary to put small quantities in shops on consignment.

All this should proceed in a small test area only. To attempt trade promotion in all India at one time would be a needlessly expen-

sive experiment. The territory selected might include only one large city, such as Calcutta, which has over a million population, but should also, for experimental purposes, include a small section of typically rural area adjacent to it.

The promotional campaign itself should seek to impress on the people that (1) this fruit will make you well and strong, (2) it is something new, (3) it is cheap, and (4) it is proper for all castes to eat it. Under the latter heading, the slogan "Not touched by human hands" can be effectively used. In truth, the fruit from California



To popularize American canned and dried fruits in India the slogan "not touched by human hands" could be effectively used. This advertisement for malted milk recognized the caste prejudice of the Hindu.

is so consistently handled only by machinery that, from the Oriental viewpoint, it can be satisfactorily advertised as such.

In advertising campaigns, the vernacular press only should be used. The weekly and monthly journals of standing are more effective than daily papers. Testimonials from local Hindu or Mohammedan physicians as to the health-giving properties of California fruit would be valuable advertising copy. Testimonials from European physicians would be far less valuable. A motion-picture film of the California fruit industry and the processing of the fruit, handled entirely by machine, could be shown in motion-picture theaters patronized by the middle-class natives. Advertising booths near temples, shrines, and other holy places, especially at times of special gatherings, make a great impression on the native mind. On special occasions, free sam-

ple distribution together with a free lecture on the virtues of California fruit would be attended by many. Free samples need not consist of a package but only of one or two prunes, or one or two slices of canned peach. The native is always willing to listen to a harangue. A man with a gong and plenty of talk can gather a crowd anywhere any time in India.

There are numerous coffee and tea shops in the large cities and towns. They offer for sale many commodities which are not consumed in the shop. Crackers, canned fish, tobacco, soap, and other similar small articles are found in these coffee and tea shops. Free sampling in them would reach a wide public.

It would not be difficult, through the methods outlined above, to acquaint the entire native middle-class public with the new and beneficent foodstuff within a short time. It must not be expected, however, that they would respond quickly and rush to buy. It is characteristic of the Indian market that it reacts slowly. Such a campaign might be conducted for a long time before large results were secured.

In rural areas, different methods must be used. In many native villages there is not a store or shop or any other place where anything whatsoever can be bought. However, once a week there is a sort of local fair. At that time the people come together to sell and to barter. Peddlers come to the village to display their wares. These native markets are under the control, in British India, of a local governmental official who issues licenses for vendors and generally keeps an eye on the proceedings.

There are also throughout rural India gatherings of people, great and small, which on a religious background bring together a large percentage of the population. These are known as 'melas.' While in modern times a certain amount of their religious significance is lost in the general holiday atmosphere, they are a favorite gathering place for those who desire to introduce new things to the Indian people of the rural areas.

Recently, throughout certain sections of India the railroads have promoted 'bazaar trains.' These are special commercial trains sent out in rural districts to afford an opportunity to merchants and manufacturers to place their wares before the people in the country and small towns. The nearest resemblance to them in America are the "Agricultural Demonstration Trains." In the latter case they seek to give away information. On the trains in India the object is to advertise and sell goods. Each car in the train is divided into two

booths, half a car being sold by the railroad as one shop. The cost for a month is about \$300 for half a car. During that time the train makes one stop each day, the rental cost of this train-store thus being about \$10 a day. Enormous crowds of people come to see and to buy



Paper bags supplied free to shop-keepers offer a better opportunity for advertising in India than do most of the newspapers. Paper bags are scarce and are often treasured in humble households.

at these trains. American soap, safety razors, malted milk, and other products have been widely advertised by them. No effort has ever been made to acquaint the people of India with California canned or dried fruits by that means, nor, as a matter of fact, by the other methods mentioned in the foregoing paragraphs.

For emphasis, it should again be said that trade promotion, even on a wide scale for California canned or dried fruit in India, is not certain of success. The result would depend in large degree upon the skill and perseverance with which it was done. In still larger measure it would depend upon a reduction in price below present levels and packaging the commodity in small units.

CEYLON

TABLE 70
DIRECT FRUIT EXPORTS FROM CALIFORNIA TO CEYLON

Kind of fruit	1927		1928		1929	
<i>Canned</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Berries.....	5,300	1,067	7,844	1,732	9,133	1,846
Apples.....	11,043	1,206	9,986	1,288	7,800	917
Apricots.....	27,100	3,567	30,093	4,225	19,875	2,643
Cherries.....	21,629	3,664	28,675	4,960	23,944	4,312
Prunes.....	43,872	5,095	34,649	4,071	30,469	3,578
Peaches.....	48,298	5,823	52,139	6,579	39,410	4,802
Pears.....	38,518	4,917	40,081	6,155	34,237	5,215
Fruit for salad.....					21,366	3,726
Other canned.....	25,646	3,434	34,764	4,577	18,624	2,462
Pineapples.....	6,165	831	6,880	980	5,789	900
Jams, jellies, etc.....	19,459	3,987	29,197	5,193	1,585	499
Total.....	247,030	33,591	274,308	39,760	212,232	30,900
<i>Dried</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Raisins.....	17,593	1,671	4,730	523	4,764	412
Apples.....	15,663	2,392	8,926	1,383	19,175	3,368
Apricots.....	2,837	592	2,972	440	3,550	761
Peaches.....	672	113	1,995	248	1,454	257
Prunes.....	25,950	2,613	36,499	4,129	34,172	3,440
Pears.....					834	131
Other dried.....	5,519	1,220	8,253	1,093	6,134	1,159
Total.....	68,234	8,601	63,375	7,816	70,083	9,528
<i>Fresh</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>	<i>boxes</i>	<i>dollars</i>
Grapefruit.....	803	4,084	1,083	5,866	943	4,538
Lemons.....	11	69	15	95	15	80
Oranges.....	2,281	10,989	2,341	13,833	1,996	10,478
Apples.....	11,873	28,795	11,879	24,991	14,152	32,583
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Grapes.....	86,000	7,460	132,540	13,416	183,243	14,996
Pears.....	210	18	660	65	1,000	110
Other fresh.....					120	12

CEYLON

The island of Ceylon is a British Crown colony and is thus governed separately from India. However, in any discussion of Eastern markets for American fruits it must be considered as a part of the British Indian Empire.

For centuries past, Ceylon has ranked in the Occidental mind as the exemplar of Oriental wealth and tropical luxuriance. Since early times it has been famed for its gems, spices, and other valuable products and for its beauty of scenery. Yet Ceylon is but a very small segment in the vast land areas of the East. The possible consumption of imported luxuries must necessarily be small. The extreme length of the island is only 270 miles. Its greatest width is but 140 miles. Even this area is not all productive; a large part of the island is semi-arid. It is in the central-western section where the rainfall is over 75 inches per year that valuable products are grown. The land in crops averages only about 3,000,000 acres, or 18 per cent of the total area. In 1929 the exports from Ceylon were valued at \$152,556,191. Of these, tea created 48 per cent of the value, rubber 22 per cent, and cocoanut products 14 per cent. Thus, these three crops compose 84 per cent of the island's exports. The present low prices of rubber and cocoanut, and the accumulating stocks of tea have depressed the economic outlook of Ceylon. Like Indo-China, Siam, Malaya, and Java, the colony is in a financial slump. The United States buys much more from Ceylon than it sells to it. In 1929 the exports from Ceylon to America were \$32,291,618, while the imports from America were only \$4,888,626. Thus the United States has been a valuable customer.

At the time of the last census, in 1921, the population was 4,505,000. It is now estimated as 5,124,992. The density ranges in different districts from 854 to 27 persons per square mile. Of this whole population, the Sinhalese, as the native race is called, make up the great majority. There are 3,299,000 of these on the island, or over 64 per cent of the inhabitants. The next largest group are Tamils from southern India, who have been imported as laborers on the plantations. These number 1,164,000. Taken together, the Sinhalese and Tamils make up the bulk of the people; they aggregate 87 per cent of the population. There are 297,000 Moors, 32,000 Eurasians, 15,000 Malays, and 11,000 Europeans. Only about 45 Americans are in Ceylon.*

* Trade Information Sheet, American Consulate, Colombo.

The religion of the country is predominantly Buddhist. This religion has about 3,000,000 adherents in the island, largely Sinhalese. Of Hindus there are almost a million, chiefly Tamils. The Mohammedans number about 300,000.† As in the Buddhist countries of Siam and Burma, the people of Ceylon are known as liberal spenders, and luxurious livers, so far as their small economic ability permits. Perhaps this is due more largely to climate than religion. In a country where for centuries past it has been possible to obtain food without work, there has seemed little need for saving for a time of scarcity. That time never came. The Tamils, however, who have migrated to Ceylon are saving and miserly. As such, they retain the habits ingrained on the Indian peninsula where life has been hard and frugality necessary.

The only great city of Ceylon is Colombo, which has a population of about 250,000. It is not only the seat of government, but the distributing center for the whole island. The second largest town is Jaffna, which has 42,000 people. Galle ranks third with 39,000, and Kandy fourth with 32,000. As a center for trade distribution, Colombo is the only place meriting consideration.

The average income of the people of the island is low but undoubtedly higher than in India or China. The average income per head of all classes is perhaps \$60 a year, or about \$300 per wage earner. This, however, includes all classes, even the Europeans. There are a number of wealthy Sinhalese families. It has been estimated that about 20,000 live on European standards. Many of these, because of their extravagance, are losing their economic position. The middle classes consist mainly of clerks and others of similar incomes. Perhaps 50 per cent of them are deeply in debt. Clerks generally are paid from \$25 to \$50 a month. To command such wages they usually must have considerable education. Below these rank the villagers and laborers, who make up the bulk of the population. Laborers on plantations are paid from \$7 to \$15 a month.

This investigation secured various estimates of the number of natives in Ceylon whose incomes were one hundred rupees (\$37) a month or over. While no exact figures are available, the best opinion indicated that these did not number more than 50,000. A recent survey to determine a basis for an income tax estimates that there are not more than 35,000 persons of all classes in the island, Europeans included, who have an income of more than \$75 a month.

† *Handbook of Ceylon*,'' L. J. B. Turner. Government Record Office, Colombo, 1926.

The climate of Ceylon is hot and humid throughout the year. The average annual temperature at Colombo is 81° Fahr. In the interior, mountains rise to over 8,000 feet, at which elevation the temperature is, of course, much lower. Since the population and the business center are in the low-lying hot country, imported fruits must be protected from both heat and moisture at all seasons.

Fruit in the Diet of Ceylon.—The diet of the people of Ceylon is based upon rice. The island normally produces only about one-third of its rice requirements, so that it is necessary to make heavy importations from Burma, India (proper), and sometimes even from Siam.

Sinhalese and Tamils alike live on a rice diet. Normally they have two meals a day, in the late morning and early evening, although among the poorest classes only one meal a day may be eaten. The laborers and lower classes buy their supplies daily. These consist of small amounts of rice and of various condiments such as curry powder, peppers, and perhaps dust tea, which are bought from a small local store, known as a 'boutique.' Usually these purchases are on credit. Normally the laborers live in one room and thus have no place to store any large supplies. Vegetables are locally produced except among these in towns and cities. Tamils laboring on plantations have small patches of vegetable garden close to the 'coolie lines' where they live. Sinhalese are often land owners or renters and grow vegetables for their own supply.

Most of the people of Ceylon begin the day with a cup of tea or coffee with which may be eaten a bread of rice flour. This may be sweetened, or if unsweetened, is eaten with a spiced condiment. The late morning meal consists of rice, together with a vegetable curry. A little fish may be added to this. If so, it is usually dried fish, but the fish may be fresh if the people live near the sea or if, during the seasons when rice fields are flooded, fish can be caught nearby. The evening meal is almost identical with that of the morning. At neither meal are sweets or fruits usually consumed among the masses.

Unless the wealthier classes have assumed European habits, their diet is much the same as that of the poorer people. Those of higher economic standing have more curries. Where the laborer may eat one curry at a meal, the middle class may serve several and the wealthy classes a dozen or twenty. The difference in the diet is chiefly quality and variety rather than kind. In the cities the evening meal may include a meat curry but the people are largely vegetarians.

All classes of the population are fond of fresh fruit. This is normally eaten between meals as a sort of stop-gap, rather than as a

part of the diet. People of the upper classes may serve an afternoon tea at which both sweets and fresh fruits are served. Some may have fresh fruit with the early morning cup of coffee, but chiefly fruit is a commodity to be consumed in the long hours between the two meals of the day. As elsewhere, those here on a rice diet find that hunger soon returns because rice, when thoroughly cooked, rapidly leaves the stomach. In a country where native fruit has been cheap and abundant throughout the year, the population has come to regard it as a bridge of satisfaction across the endless hours between the two meals of the day.

In cities, clerks and laborers purchasing food at one of the numerous small restaurants can get a complete meal for the equivalent of 8 to 10 cents. After this meal they may purchase candy, a cake, or a cigarette for the equivalent of another cent, thus spending luxuriously.

There are no religious food prohibitions that would seriously interfere with the introduction of canned or dried fruits among the people of Ceylon. While a few orthodox Hindus literally live to the tenets of their religion, the number of these is so small as to be negligible. Whether association with the easy-going Buddhist or displacement from the motherland of India has influenced the Tamils, they here exhibit a tolerance in food that differs from the ancient customs of southern India whence they came.

Fresh Fruits.—Ceylon differs from many other tropical countries in that the quality of the native fruit is poor and the supply meagre. The island thus presents a better opportunity for the importation of fresh fruits than do some of the other countries of the southern seas.

The people of Ceylon have always been fond of fruits and accustomed to eating them, but owing to the multiplying population, the planting of more valuable crops, and the lassitude of the native people, the native fruits have neither been increased nor improved. There is no commercially developed fruit-growing industry of any considerable size except for the cocoanut, which is one of the principal products of the island. Most of the native fruit is grown in small and apparently accidental patches. It is marketed mainly through 'basket-women' who come into the towns and villages with a few native fruits in a basket and there attempt to sell them to the ultimate consumer. A basket-woman is usually the wife of the farmer who grows the fruit on a spare patch of ground. Apparently, no system of gathering these fruits from the producer for transport and sale in quantities has been developed. Attempts have been made to stimulate interest in an organization of fruit growers, but thus far without success.

Europeans find the native fruits insipid in taste and poor in quality. They are eaten, however, because they are always obtainable and cost but little. Mangoes are the most popular native fruit. They are in season from April until January, and cost at retail about 1 cent each. Mangosteens perhaps rank second in popularity, although their quality is inferior to those of Java. Normally these are on sale from December through February, at two for 1 cent. The native orange is acceptable, although relatively juiceless when compared with the American fruit. They retail for about 1 cent each and are available during the whole year. The local pineapples are superior to those of Malaya or Java. These sell for 1 to 5 cents each and are always in the market. Limes, cocoanuts, jack-fruits and several others are fruits for the entire year.

In 1929 there were 2,385,800 pounds of fresh fruit valued at \$294,091 imported into Ceylon. Of this a certain amount was re-exported as ships' stores, since in the run between China and the Mediterranean, Colombo is a central point where many ships are resupplied. Because of the lower price of the native tropical fruits, ships are more likely, however, to stock at Colombo with these than with the imported fruits of the temperate zone.

Of the imported fresh fruits, the largest quantities come from Australia and the United States. British India ranks third, and Spain fourth. Italy and Palestine also ship to this market, but in far smaller amounts than the four countries named above.

Apples rank first in popularity among imported fruits. The native of Ceylon thinks a hard red apple is a very fine luxury. Australia sends large quantities of apples into this market. This investigation found Australian apples wholesaling at 10 cents a pound, while American apples, packed 200 to the box, wholesaled at \$5.50 to \$6.50 a box, or for about 10 to 15 cents a pound. At retail, both sold at the same price, namely, at about 44 cents a pound.

Grapes rank second in popularity among imported fresh fruits. Spain, Australia and America all send grapes to Ceylon. Spain and America directly compete, as their seasons coincide. When shipments start from Australia the importations from Spain and America usually cease. In early 1930, however, late shipments of California grapes found Australian grapes already in the market. The price consequently had to be radically reduced in order to make sales. Spanish grapes, packed in kegs in cork are shipped as deck cargo. American grapes in sawdust arrive only by refrigeration. Australian grapes without refrigeration come by a relatively short voyage at low rates.

The native population buys grapes from small stands in the towns. Large bunches are clipped into small clusters which are sold for about the equivalent of one-half cent each. It is not uncommon to see coolies and rickshaw pullers stop to buy a cluster of imported grapes which they eat on the spot. In February 1930, in the same markets grapes from Spain were wholesaled at 18 to 25 cents a pound and were retailed at 25 to 30 cents. Grapes from Australia wholesaled at 13 to 20 cents a pound and retailed at 20 to 30 cents. Grapes from California wholesaled at 16 to 18 cents a pound and retailed at 24 cents.

Oranges from America were on sale beside those from Palestine. The oranges from Jaffa wholesaled for \$6.10 per box of 200 and retailed at 5½ to 7 cents each. California oranges, also 200 to the box, but of superior quality, wholesaled at \$10.36 a box and retailed at 8 to 10 cents each. California grapefruit wholesaled at \$10.36 per box of 100. They retailed at 17 cents each. Trial shipments of grapefruit have been sent from Jaffa but there were none in the markets at that time. Japan has made shipments of pears, but normally pears do not reach this market with any regularity.

Fresh fruit from California to Ceylon comes under refrigeration by either one of two lines which run between California ports and Colombo. Fruit is usually ordered at c.i.f. prices from California exporters. Since a large proportion of the imported fruit is sold to Europeans, much of the imports enter consigned to a few large retail stores which cater to the European trade. These do no wholesale business. There are also, however, a few importers who order fruit on their own account or on that of regular clients. Some of these place blanket orders with California firms for stated amounts on each outgoing ship, for which a maximum price is stipulated.

Fresh fruit from Australia and Jaffa is imported by similar methods except that the Australian or Palestinian exporters have become habituated to including an additional quantity on consignment along with the amount regularly ordered.

The freight rate under refrigeration from California to Colombo for apples is \$1.30 a box; for grapes it is \$30 per ton of 40 cubic feet; and for oranges and grapefruit, \$1.80 a box. On arrival at Colombo, fresh fruits enter without payment of duty. Since ships are anchored in the harbor, all cargo must be lightered to the shore. Coolie and lighterage charges average 4½ cents a case. Harbor dues are 1½ cents a case. By the plant quarantine regulations, all fruit must be fumigated on arrival. The charge for this is 18 cents a case.

Two companies at Colombo have cold storage warehouses in which they rent space at 55 cents per case per month. On contract with these companies this charge is usually reduced to 37 cents. The total space available is sufficient for 2,500 cases. About 20 per cent of the fresh fruit landed at Colombo is shipped to other towns on the island. There are no refrigerator cars on the Ceylon Government Railways, but the haul is so short that refrigeration is not necessary.

Because of the competition of other countries of the world, any large expansion of markets for American fresh fruits in Ceylon depends mainly upon reduction in price. Australia is able to ship fresh fruit by comparatively short voyages without refrigeration. American fruit must make a long voyage through warm seas under cold storage. Although the peak of the seasons do not coincide for California and Australia which are on opposite sides of the equator, the beginning and end of the seasons do overlap. Thus, Australian shipments limit the length of time during which American fruit can be sent profitably into this market. Spanish grapes and California grapes compete at the same season, but Spain is able to send grapes without cold storage. Spanish grapes are even, at times, shipped to London and from thence reshipped back past Gibraltar and through the Suez Canal to Colombo, all without refrigeration. In February 1930, grapes from Spain exhibited in the markets of Colombo were superior to those from California, although the former came by refrigeration and the latter without it.

If cheaper means of marketing, transportation, and storage were devised so that California fruits could be laid down in Colombo at lower prices, more fresh fruit could then be marketed. At lower prices not only would the competition from other countries be decreased, but the native consumption would be increased. At present prices, there is little opportunity for marked expansion.

Canned Fruits.—The native population of Ceylon likes canned fruit. The upper classes consume it in limited amount. However, their liking for jams is at least as great as that for the higher-priced canned fruits. Consequently, comparatively large amounts of jam are sold in this market.

The European population consumes canned fruit in larger amounts than in some other countries of the East because of the poor quality of the native fruit. Furthermore, in Ceylon it is traditional among Europeans for intimate friends to arrive for dinner without special invitation or appointment. On such occasions it is the duty of the household servants to provide food for a number of extra persons on

a few minutes' notice. They do so by borrowing food already cooked from the kitchens of the neighbors. If a householder at dinner notices that he is served fewer potatoes than customary, he infers that some nearby neighbor has unexpected guests. Into such a scheme of household economy, the tin of canned fruit fits admirably. With the aid of only a can opener, an acceptable dessert is provided for emergencies. Therefore, most European housewives, in self-defense, keep a supply of canned fruit in the pantry.

The tin of canned fruit not only panders to the laziness of the East, but also to the desire for a food from the lands beyond the seas. The rather insipid native fruit palls upon the imagination as well as upon the palate. A can of fruit puts an interest into a meal for persons jaded by long residence in a humid tropical country.

American canned fruit predominates in the markets of Ceylon. The reported importations of canned fruits from all countries through the customs offices total about 6,000 cases. In addition thereto, 5,600 cases of jams, jellies, and marmalades were imported in 1929. More than half the canned fruit comes from the United States; the exact amount cannot be determined. In 1928 the United States exports from California to Ceylon were reported as 4,218 cases, exclusive of tinned prunes and of jellies and jams. The import figures of the Customs of Ceylon credited 3,120 cases to the United States. In addition to these, however, considerable amounts shipped to Hongkong and Shanghai are trans-shipped from there to Colombo.

In competition with American canned fruits, the markets also display cherries from France, fruit salad from Switzerland, cherries and plums from England, and an entire line of canned fruits from Australia. In jams and marmalades, English and Australian jams predominate. For the native trade Australian jams rule the market because of their low price. One-pound cans of jam retail at from 15 to 22 cents a can, according to the variety of fruit in them. In small native shops they sell as low as 12 cents per pound can. One-pound cans of California canned fruits retail at 19 to 30 cents for various varieties. The can of jam appears to be solid fruit and is very sweet. The can of fruit holds fluid as well as fruit and contains less sugar. Under these circumstances the native usually chooses the jam instead of the canned fruit. When cheapness, quantity, and superior taste are all combined, the result is likely to command the native trade.

In Ceylon, as in India (proper), one brand of Australian canned fruit sells at a lower price than competing American brands. Here, as

in India, much of the fruit marketed under the Australian label is packed in America. These Australian fruits have not yet made large inroads into the sale of the American brands except in sales to the native population. In stores catering to the Sinhalese trade, it is customary to see a half-dozen cans of American branded fruit displayed beside a much larger stock of canned fruit under the Australian label. Either because of the energy of agents for the Australian brand or because of its lower price, or both, the sales to natives of American canned fruit are gradually becoming displaced. While it may be of no consequence to the California fruit grower under what label his fruit is marketed, it is certainly of interest to the owners of American brands.

Among the European population, peaches rank first in popularity, apricots second, pears third, and cherries fourth. Among the natives, peaches are the most popular, followed closely by pears. Cherries rank third in popularity and apricots fourth. Fully 90 per cent of the sales are in the No. 2½ can. Only small amounts of the small sizes have been sold.

Representative wholesale and retail prices in Colombo of American canned fruits under medium-priced brands are given in table 71.

TABLE 71

CURRENT PRICES, COLOMBO, CEYLON, FEBRUARY 1930, AMERICAN CANNED FRUITS

	Per Case Wholesale			Per Can Retail		
	No. 2½	No. 1	8 oz.	No. 2½	No. 1	8 oz.
Apples	\$8.42	.....	.....	\$0.36	.....	.....
Apricots	7.69	\$9.52	\$8.64	.37	\$0.22	\$0.15
Cherries	10.26	12.44	10.85	.47	.27	.17
Grapes	6.96	.....	.....	.31	.....	.....
Peaches	7.69	10.30	7.20	.37	.23	.12
Pears	8.42	10.66	8.64	.40	.30	.15
Plums	7.69	.....	7.20	.37	.19	.12
Fruit Salad	10.99	13.19	12.24	.45	.30	.20

California canned fruits are ordered on indent direct or through agents on the basis of a c.i.f. price. Several large provision stores catering to the European trade conduct both a wholesale and a retail business in canned fruits. There are also wholesalers in Colombo who indent through agents. These distribute to smaller shops and native stores in the bazaars. They often extend credit up to four months from the date of purchase.

Freight rates from California to Colombo average \$20 per ton of 40 cubic feet. On arrival, canned fruit pays a duty of approximately

10½ per cent. Lighterage and coolie charges average 4½ cents a case. Harbor dues are 1½ per cent. Interest on drafts is usually charged at the rate of 7 per cent.

It is estimated that about 25 per cent of the canned fruit shipped to Colombo is consumed at interior points in Ceylon away from that city. The distribution is largely through the large provision stores in Colombo who not only ship regular monthly and weekly orders of provisions to Europeans on up-country plantations, but who also supply local stores in some of the interior towns.

A reduction in price to meet or surpass the competition of other brands of canned fruits and of cheap jams, would be a great stimulus to the consumption of canned fruit in Ceylon. Because of the extravagant habits of the Sinhalese, their liking for sweets, and the comparatively small variety of native fruits, Ceylon is a fertile field for the sale of canned fruits.

Even the European consumption of canned fruits could be increased. At present they are chiefly used among Europeans for entertainment purposes. The average Britisher has an inherent distrust of canned goods of all kinds. He fears he may be poisoned by them. Furthermore, he does not believe they are a valuable foodstuff, but rather that they have lost their vitamin content and other valuable properties. However, price is the main limitation to their sale. A decrease in price would result in increased consumption.

The small-sized can would fit into the needs of the European, when not entertaining, and into the purchasing power of the natives. As yet this size has not been sold nor has it been actively promoted.

Dried Fruits.—In 1928 the United States customs reported 63,375 pounds of direct shipments of dried fruits from California to Ceylon. In addition to this amount, they reported 34,649 pounds of prunes in tins. The Ceylonese customs report only credits the United States with importations of dried fruits totaling 37,600 pounds. If either figure be taken, the sales of dried fruits are small in Ceylon.

Contrary to most countries of the East, American raisins have not permeated the native trade of this island. Prunes are by far the most popular American dried fruit. Not only do the Europeans consume them, but some of the natives eat prunes dry out of hand as a confection. The best hotel in Ceylon serves dry prunes regularly as a confection at the end of the dinner. Many traveling Americans regard with astonishment this use of the familiar prune.

Practically all American dried fruits brought into Ceylon are in tin containers. These tins are sold to Europeans but are also sometimes

opened in native markets where the fruit is sold in small quantities from the can. However, in these markets dried fruits from other countries compete with American fruit. From Afghanistan apricots retail at 23 cents a pound, currants at 20 cents, and figs at 23 cents. Block dates from Arabia and Mesopotamia retail at 6 cents a pound. From Australia currants sell at 20 cents a pound and dried apples at 50 cents.

American dried fruits are on sale at the wholesale and retail prices shown in table 72.

TABLE 72

CURRENT PRICES, COLOMBO, CEYLON, FEBRUARY 1930, AMERICAN DRIED FRUITS

	Prices per pound			
	At wholesale		At retail	
	In tins	In bulk	In tins	In bulk
Apples	\$0.44	.....	\$0.50	\$0.54
Apricots .....	.45	.....	.52	.55
Figs .....	.....	\$0.37	.....	.41
Peaches .....	.42	.....	.47	.50
Prunes .....	.24	.....	.28	.28

Dried fruit is ordered from California by the same general system as canned fruits. Freight rates are \$20 per ton of 40 cubic feet. There is a duty of about 10½ per cent on entry into Ceylon. Coolie and lighterage charges and harbor dues are the same as for canned fruit. Perhaps 25 per cent of the dried fruit imported from America is consumed in the towns, villages, and plantations outside of Colombo. Since distances are short, the freight charges on the railroads are small, consequently, prices of dried fruits in the interior do not increase greatly over those in Colombo. In general, at interior points prices rise only about 5 per cent.

Prunes present the best opportunity for increased markets of any dried fruit in Ceylon. The fact that some natives already purchase these for eating dry out of hand indicates that with favorable promotion their sale might be increased. Most of all, lower prices would increase consumption. To this end, smaller prunes would not be effective. A prune to be used as a confection or as an assistance to health must be of good size and quality. The native likes a prune which is fat, juicy, and rather moist. Furthermore, this fruit must compete, to some degree, with Asiatic dried fruits that come to this market at low prices. The present price differential is large and yet, even with this handicap, the consumption of dry prunes is relatively great.

Raisins face competition with cheaper raisins from Afghanistan and from Australia. Very few California raisins are now on sale. Only 900 pounds were imported in 1929, according to the Ceylonese statistics, but the American statistics state that 4,764 pounds were exported from California in that year. Meanwhile, 64,900 pounds came from Afghanistan, through India, and 22,400 pounds from Australia. Afghanistan raisins retail at 16 cents a pound and Australian raisins at 14 cents; both prices are materially lower than that of the raisins from California which in pound cartons wholesaled at 18 cents and retailed at 23 cents.

Other dried fruits such as peaches, pears, apricots, etc., are used only by the small European population and by the few natives who live on a European diet. Marked expansion in their sale does not appear feasible of accomplishment.

Trade Promotion Methods.—Because Ceylon is such a small section of the East, trade promotion cannot here yield large results. Nevertheless, the buying power of the island is considerable, both because of the somewhat higher average income and because of the spending habits of the people.

The population of Ceylon responds readily to advertising appeals. About 40 per cent of the people of the island were literate at the time of the census of 1921.* Doubtless the percentage is even higher at present. Viewed in comparison with the peoples of other Far Eastern countries, those of Ceylon are progressive and anxious to embrace new ideas. Health and health education are matters of governmental and public interest. It is said that anything abundantly advertised in Ceylon as an aid to health and strength can be sold in large amounts. The reading of newspapers is widespread. As an advertising medium the vernacular press is the best vehicle. Persistent advertising in the native papers usually brings results, provided the commodity is one that meets the needs of the people and that sells at a low price.

Both canned and dried fruits of certain kinds could be successfully promoted in Ceylon if these were packaged in small containers and were abundantly distributed and advertised. Their success, however, would depend upon lower prices than those now current. The rupee, of the same value as in India, namely, 37 cents, is the coinage of Ceylon. Here, however, the rupee is not divided into sixteen annas, as in India, but into one hundred so-called cents. Five, ten, and

* "Handbook of Ceylon, 1926," L. J. B. Turner. Pub. by Govt. Printer, Colombo, 1927.

twenty-five cent pieces are the customary coins. If the 8-ounce can of fruit could retail in native markets for a 25-cent piece (9 cents plus in American value), and if a small package of raisins or prunes could retail for a 10-cent piece ($3\frac{7}{10}$ cents in American value), their sales would be very much greater than if the price were a trifle higher.

The distribution of recipe books is well under way in Ceylon. One firm advertises that a recipe book of desserts, all of which call for the use of their product, can be obtained by sending them 3 local cents. The distribution of similar directions telling how to use dried and canned fruit, each recipe book being accompanied by a small free package, might be an effective method of advertising. In all such cases, however, a nominal charge must be made. Otherwise the flood of answers from those who write to get something for nothing would extend down below the level of the potential consumer into the class of those who have nothing to spend.

Here as in some other Eastern countries, the coffee and tea shop is everywhere in all towns. These coffee shops would serve as an effective place of advertising and of distribution. Any coffee-shop keeper who is paid something for the service, will promote anything whatsoever. Small packages of prunes, and small cans of peaches, would lend themselves to distribution at these places. Although a small can of fruit that retails for $\frac{1}{4}$ rupee is beyond the usual scale of coffee-shop expenditures and must at best be only an occasional luxury to most Sinhalese, it would not be beyond their occasional impulsive purchase since they are people who like to indulge in luxurious habits. Especially would this be true if the coffee-house keeper called such packages frequently to their attention.

Any trade promotion for dried or canned fruits in Ceylon should start in the cities and become popular there before an effort is made to introduce them into the rural districts. Not only are the middle classes largely congregated in the towns, but it is there that the fashions in spending are created. In this wise, Ceylon differs not at all from western countries. If these commodities became favorably known in the towns, their use would not be confined to them. The small stores that cater to the laborers' needs would find that increased demands for canned and dried fruit would arise. Because of the small size of the island, intercourse between town and country is frequent. Anything used by those in the city is soon demanded by those in the country. Since the rural people usually have low incomes, their desires may not be possible of frequent satisfaction, but even the laborer is a spender

within the limits of his power. He might not buy canned or dried fruits very often, but he would buy them occasionally if he desired them at all.

The greatest opportunity for the expansion of markets appears to be for canned peaches and for dried prunes. Both of these are already liked by those who are acquainted with them. Their relatively low price lends these commodities to the needs of this market. The health value of prunes is one appeal that can be made to this people. In small packages they would meet the buying power of the native middle class. The small-sized packages would also provide a new use for these fruits among Europeans who now utilize them chiefly for entertainment purposes. In a land where native fruits are of poor quality and limited variety, the small can of fruit would prove a boon to the European householder if it could be brought into his consciousness and kept there.

Fresh fruits are in demand among natives and Europeans alike. The expansion of their sale is a matter of price. By lowered prices, larger quantities will be sold without trade promotion. At present prices, the market will expand but slowly.

CONCLUSIONS

The active demand for American fruit in Asia is already supplied. This investigation did not succeed in finding anywhere millions of natives of Eastern Asia waiting expectantly for American fruits in fresh, canned, and dried form. In most countries there is an abundance of cheap local fruit to which the people are accustomed. There are also many local condiments, confections, and refreshments which have been developed to fit their needs and their purchasing power. There is no opportunity to ship to Asia large amounts of fresh, canned, or dried fruit which will sell at good prices through spontaneous demand. If the people of Asia need American fruit in larger quantities they do not realize it.

The present export of fruit to Asia has no material influence on the prices farmers receive. Not 1 per cent of any California fruit is marketed in Asia. Only one-tenth of 1 per cent of the United States peach crop goes to Asia. From this the percentages range upward to that for the grape crop (see table 7) of which nine-tenths of 1 per cent is there marketed. All these amounts are so small that they have no material effect on the prices farmers receive. If there were an embargo across the Pacific so that not one pound of fruit could be shipped to Asia, it might cause a momentary flurry in the fruit market, but, in the long run, prices paid to farmers would be as high as before. Larger demands bring higher prices, but our marketing system is not yet so sensitive nor so finely adjusted that prices respond to fluctuations of a fraction of a per cent in demand. The present Asiatic market for California fruits is of no direct benefit to the California farmer.

In order to perceptibly move prices upward by means of Asiatic export it would be necessary to increase present exports by several hundred per cent. For prunes, H. R. Wellman has calculated on the basis of past production and prices (see table 73) that a decrease in production or a decrease in supply to the present markets of 4.5 per cent would cause an increase in price to growers of 5 per cent (see figure 19). Since the average annual production of prunes in the United States between 1926 and 1928 was about 220,000 tons, it would have been necessary during those years to have increased Asiatic export by 9,900 tons per year to have raised prices to growers 5 per cent through that method. Such increase, based upon the average

TABLE 73
PRUNES: PRODUCTION AND PRICES

Year	Production			Price to California growers on 40-50s cents per lb.
	World tons	United States tons	California tons	
1921	205,700	173,300	100,000	9.1
1922	225,400	166,000	130,000	8.7
1923	246,700	155,000	130,000	7.5
1924	178,300	164,000	139,000	7.5
1925	211,600	159,000	146,000	7.3
1926	249,200	190,500	150,000	5.2
1927	299,100	244,500	225,000	4.9
1928	245,900	223,100	220,300	6.8
1929	146,400	130,500	103,000	11.0

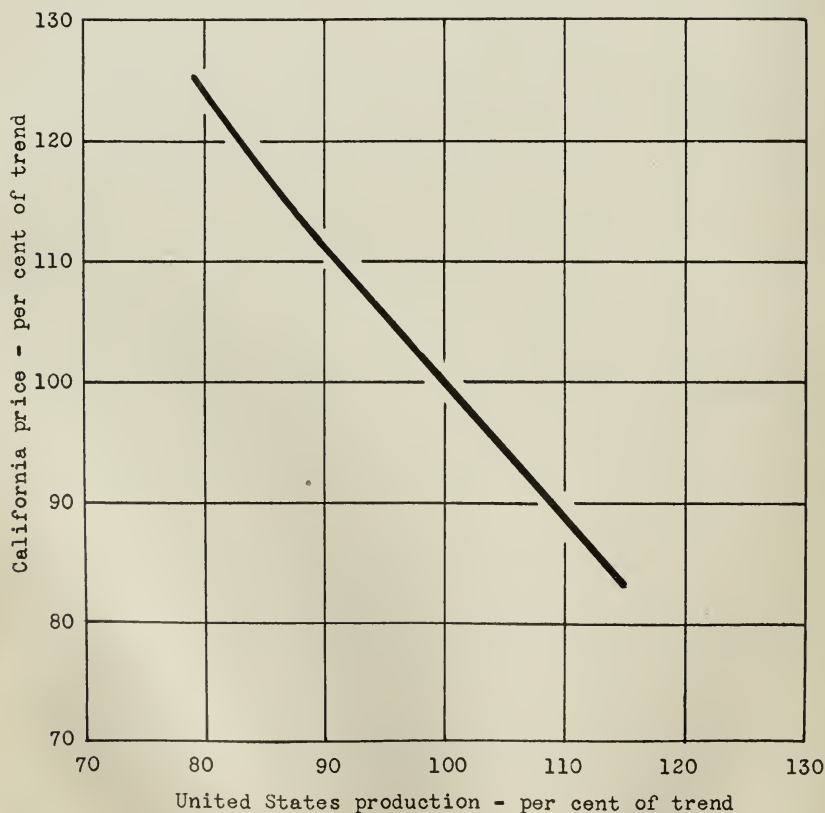


Fig. 19.—Average Relation between California Price of Prunes and United States Production of Prunes.

farm price in those years would have returned annually to growers \$990,000 more than they received. But in those three years we sent to Asia only 651 tons of prunes. Thus it would have been necessary to increase our present Asiatic markets more than fifteen fold to have brought this increased return.

Let us similarly look into the question of the export of fresh grapes. In the United States during 1924-1928 the average annual production of grapes marketed as fresh was 1,301,560 tons. In California the production was 1,086,190 tons. In that same period our average export of fresh grapes to Asia was 825 tons (see table 74), or considerably less than one-tenth of 1 per cent of the fresh grape crop. Based upon

TABLE 74
UNITED STATES PRODUCTION AND EXPORTS OF CERTAIN FRUITS
AVERAGE 1924-1928
(Fresh Equivalent.)

Fruits	Production	Amount exported			Per cent exported		
		Total	Europe	Asia	Total	Europe	Asia
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	per cent	per cent	per cent
<i>Apples</i>							
Total.....	8,111,016	878,415	770,917	12,724	10.8	9.5	0.2
Fresh.....	7,447,778	610,580	519,994	9,807	8.2	7.4	0.1
Canned.....	281,478	30,173	29,140	589	10.7	10.4	0.2
Dried.....	381,760	237,662	221,783	2,328	62.3	58.1	0.6
<i>Apricots</i>							
Total.....	340,400	147,938	132,938	2,757	43.5	39.1	0.8
Fresh.....	32,582						
Canned.....	88,238	25,476	23,394	585	28.9	26.5	0.6
Dried.....	219,580	122,462	109,544	2,172	55.8	49.9	1.0
<i>Cherries</i>							
Total.....	271,880	1,882	322	843	0.7	0.1	0.3
Fresh.....	209,259						
Canned.....	62,621	1,882	322	843	3.0	0.5	1.3
<i>Grapes</i>							
Total.....	4,563,938	643,984	383,472	38,885	14.1	8.4	0.9
Fresh.....	2,603,118	33,563	293	1,649	1.3	0.01	0.1
Dried.....	1,956,800	610,421	383,179	37,236	31.2	19.6	1.9
<i>Peaches</i>							
Total.....	2,649,792	140,494	98,876	1,939	5.3	3.7	0.1
Fresh.....	1,903,553	17,333	401	15	0.9	0.02	0.01
Canned.....	493,459	80,672	69,161	1,616	16.3	14.0	0.3
Dried.....	252,780	42,489	29,314	308	16.8	11.6	0.1
<i>Pears</i>							
Total.....	1,031,232	136,729	96,313	1,162	13.3	9.3	0.1
Fresh.....	816,436	61,858	27,054	127	7.6	3.3	0.02
Canned.....	170,928	74,871	69,259	1,035	43.8	40.5	0.6
Dried.....	43,868						
<i>Prunes</i>	986,100	511,385	439,739	2,750	51.9	44.6	0.3
<i>Grapefruit</i>	731,019	42,890	19,766	477	5.9	2.7	0.1
<i>Lemons</i>	537,720	18,434	92	2,454	3.4	0.02	0.5
<i>Oranges</i>	2,772,955	188,679	17,203	6,705	6.8	0.6	0.2

the prices and volume of the crop in the past (see table 75), Wellman has calculated that a decrease in supply of $2\frac{1}{2}$ per cent would cause a 5 per cent increase in price (see figure 20). Thus, it would be necessary to move into Asiatic export 33,300 tons of fresh grapes if we desired to raise the price of grapes 5 per cent by that method. This would require us to ship to Asia an additional amount equivalent to forty times our past exports.

TABLE 75
GRAPES; CARLOT SHIPMENTS AND PRICES

Year	Total Shipments		f.o.b. Calif. dollars per lug
	Calif. cars	U.S. cars	
1921	33,343	37,816	1.32
1922	43,944	59,918	1.08
1923	55,348	65,323	.89
1924	57,679	69,925	.87
1925	76,043	81,857	.66
1926	64,326	78,589	.55
1927	75,923	82,675	.56
1928	72,711	81,770	.36
1929	55,119	65,117	.62

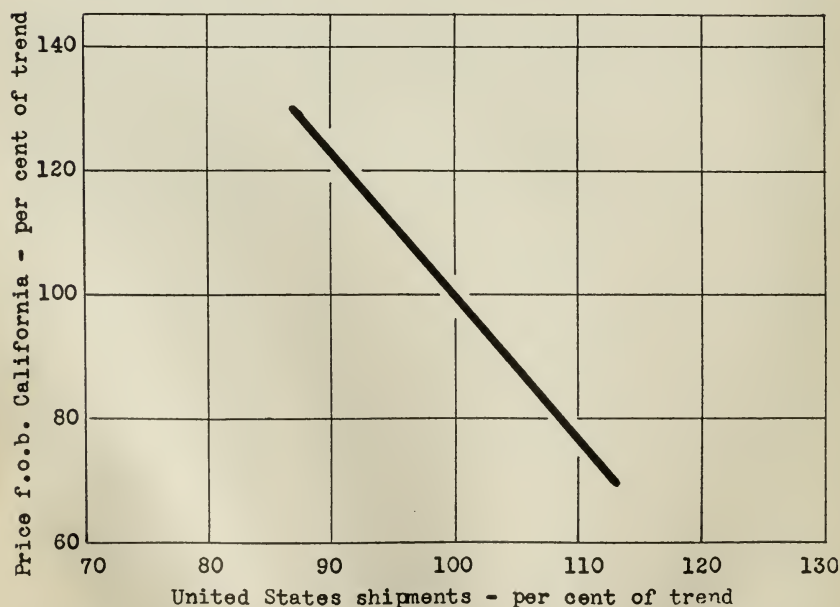


Fig. 20.—Average Relation between California f.o.b. price of Grapes and United States Carlot Shipment of Grapes.

In the problem of developing higher prices for California fruit, the shipment of a few thousand cases additional here or there, while spectacular to those who see them loaded or who read about it in the press, confers no benefit whatsoever except upon the individuals who ship, export, or transport the fruit. To raise the price level of California fruits in America the supply offered for sale at home must be decreased by a considerable percentage. This means an amount of fruit so enormous that few realize its volume other than those who have dealt with the problem on the basis of mathematical calculation. A few thousand cases of fruit removed from America into the Far East or elsewhere are like lowering the level of a lake by taking out a dipperful of water. The lake is of course lowered, but it does not perceptibly assist the man who proposes to wade or swim across.

If trade in Asia is to effect results that will benefit the state as a whole and the farmers as a group, it must move a sufficient additional percentage of the crop so that the general price is definitely raised. Otherwise such an undertaking is not of concern either to the farmers or to those who look to them for financial reimbursement. It is the concern only of those who themselves are benefited, namely, those who market or transport the particular shipments.

An increased demand sufficient to move prices upward by means of export to Asia can come only from Asiatics. The European population of Asia is exceedingly small. In all the countries covered by this report, a territory which comprises half the people on the earth, there are only approximately 671,146 Europeans and Americans. The majority of these already consume fruits imported from California. Except for raisins, most of the fruit exported to Asia is eaten on the tables of Europeans. They cannot possibly be induced to eat forty times, or even fifteen times, as much as they now do. And yet it would require such increases to cause a result of general benefit. Obviously, therefore, if markets in Asia are to be so increased that they will be favorably reflected in farm prices, the increase must be gained through the eating of these fruits by Asiatics.

All discussion, therefore, of the consumption by Europeans in Asia is futile when it relates to the general farm price level. The only question of concern to the state is whether the native peoples of Asia can and would consume American fruits in sufficient volume to move prices upward.

Fresh fruits cannot be sold in Asia in large enough quantities to move prices upward. Asia has a large production of fresh fruits. In most of the countries studied, great quantities of native fresh fruits

come upon the market at low prices. In all countries, native fruits are offered so cheaply that they preclude the possibility of imported fresh fruit consumption by Asiatics except among a very limited group who may desire an occasional novelty in the form of an apple, a bunch of imported grapes, or a California orange.

The production of fruits of European varieties is increasing in Japan, China, and Korea. These fruits are cheaply produced and, although often inferior to those grown in California, they sell at low enough prices to command the native trade. In the tropical countries native fruits are so abundant and so cheap throughout the entire year that, in comparison, the imported fruits are extraordinarily expensive. Competition from Australia, Japan, Northern China, and Palestine is increasing in the Asiatic tropics. These countries ship by shorter haul and usually without refrigeration into these markets.

Fresh imported fruits can be sold only in and near the ports of most countries in Asia. For wide distribution, fresh fruit requires excellent conditions of transportation and storage, otherwise the market must be limited to those places where the fruit is landed. The interior of Asia certainly does not have good transportation or good storage. In most of the countries of Asia, fresh fruits cannot at present get far beyond the ports.

Thus, markets for American fresh fruits in Asia are limited not only by the buying power of the people—which limits the outlook for imported commodities of every kind whatsoever—but also by the great quantity and low price of native fruits, by the competition from other countries, by the perishable nature of the product, and by the poor transportation. Fresh imported fruit must, at present, find its purchasers among the natives and Europeans close to the best transportation. Of these the number who could be induced to buy fresh fruit from America is small in comparison with the volume that must be marketed in order to influence the general price level.

Finally, it is impossible at the present time to ship enough fresh fruit under refrigeration across the Pacific to influence prices. At present, all the ships of all the lines that touch at California bound for Asia, or that are expected to voyage in 1930, have a combined refrigeration space which, multiplied by the number of voyages that each ship makes in a year, totals 118,219 tons of forty cubic feet. In an average month this is equivalent to 9,852 tons of space. But only 16 kegs of fresh grapes weighing 32 pounds each can be stored in 40 cubic feet. Even if we desired to assume that there would be no difficulty in selling forty times as many grapes in Asia as before, it would

require more than all the refrigeration space in all the ships that run between California and Asia loaded to their utmost capacity with nothing whatsoever but fresh grapes for the entire year to unload enough grapes on the Asiatic market to raise the price of grapes 5 per cent.

Small packages of canned and dried fruits present the best opportunity to make large increases in our present fruit markets in Asia. If American fruits are to obtain large markets in Asia they must be so presented that a comparatively small initial expenditure will buy a unit of the product. The success of the great oil, tobacco, cracker, and soap companies on that continent is based upon several factors, one of which is that the product is purchasable in small amounts by persons of low income. The small tin of fruit and the small package of dried fruit must be emphasized if markets are to be greatly increased.

Among all the California fruits in all forms, small packages of dried prunes and small cans of peaches present the best general possibilities for materially enlarged markets. Raisins from California are already popular among the people of Asia. Even at present, with the comparatively small effort which has been made to market raisins in Asia, we sell there about 1.9 per cent of the United States raisin crop, or about 0.9 per cent of the entire grape crop. We only sell in Asia 0.3 per cent of our dried prunes and 0.3 per cent of our canned peaches, although the volume of grapes made into raisins in California is about double that of prunes and four times that of canning peaches (see tables 3 and 74).

Small packages of dried prunes might be made popular in Japan, China, the Philippines, Siam, India, and perhaps even in British Malaya and the Netherland East Indies under certain conditions later discussed. Because prunes offer an opportunity for introduction as a medicine as well as a food, the possibilities which they present are even larger than that for raisins. The pages of this report have repeatedly called attention to the need for a laxative among those on a rice diet. Coupled with this need is the general active desire for greater health and strength. In eastern Asia the natives have long sought charms and nostrums for that purpose. From these they have progressed to patent medicines. More recently they are beginning to emerge into some knowledge of diet and its effect on health. America and Europe are not the only places where vitamins are discussed. These new and mysterious substances appeal to the psychology of the East. If the lower classes are still steeped in the auguries and talismanic medicines of the Orient, there is clear evidence that they are also interested in the

new health foods of which they are beginning to hear from missionaries, from European physicians, and from the companies manufacturing canned and dried milk, cereals, and baby foods. Dry prunes could with truth and sincerity be promoted as an aid to health and strength among many peoples of the East.

If the volume of prunes shipped to Asia became as great as the present volume of raisins exported, the market in Eastern Asia would then consume about 1.9 per cent of the world's prune production (on the average of 1923-1927), or slightly less than 3 per cent of the California prune crop. Such increase is entirely within the bounds of practical marketing possibilities, provided adequate funds were available for promotion among the people of the Far East. Even this, however, might not create any clearly perceptible increase in the farm price of prunes.

Dried fruit to be popular in Asia must, at present, be offered as a condiment or confection to be eaten dry out of hand. The use of dried fruit in cooking might follow later. Because the people of Asia do not know how to cook dried fruits and have no present place for it in their customary meals, it would be much more difficult to introduce dried fruits for the purpose of cooking than for eating as a sweetmeat to be munched at various hours of the day. The vast amount of eating between meals habitual all over Eastern Asia would make this use a large one if it were developed.

Small cans of peaches and other fruits present considerable potentiality for expanding markets. China is a particularly favorable field for small cans of various fruits. American canned fruits could come into their own in China if they could be put within the possible range of purchase of a larger number of people by means of a smaller package and then made known to them as a high-quality product. The Chinese like canned fruit and they respect quality. The Philippines, Siam, Burma, and Ceylon offer smaller opportunities only because of their smaller populations. Japan will present a large possibility for American canned and dried fruits if the luxury tariff of 100 per cent is radically revised downward. India might consume much larger amounts of canned fruit than at present, if the market were consistently cultivated.

At present the large No. 2½ can of fruit is standard throughout Asia. Its use is confined to the purposes for which it is adapted. Canned fruit is largely used only by the well-to-do. Rich natives use canned fruit for gifts and for feasts; Europeans use it for entertaining friends. The common daily use of canned fruits in the home, simi-

lar to that in America, is not prevalent anywhere in Asia except in a very few places among a very limited group of rich Europeans.

It is obvious that as long as the large can of fruit is the only size used it can sell only to those who have enough money at one time to buy a luxury of that magnitude. Furthermore, it will only be bought by them for occasions for which the large can is fitted. Thus, the large can has both a limited clientele and a limited use.

The small can would appeal to a far larger public provided its price can be reduced so that there is not too great a penalty for buying in a small quantity. In many places it was evident that retail merchants, and perhaps wholesalers, were exacting as much profit from the sale of a small can as from that of a big one. They perhaps worked upon a sale basis rather than on a percentage. A sale was a sale and it ought to bring in about so much return. Perhaps a high price was charged because the merchant feared the small size would not sell and therefore hoped to regain the cost of the whole case by the returns from a part of it.

Except in Japan and India, the Chinese merchant prevails from north to south over all of eastern Asia. From Harbin to Surabaya retail merchandising is in the hands of the Chinese. These merchants usually stated that the small can of fruit would not sell because nobody had ever asked for it. The Chinese are notoriously deficient in creating a demand. They are equally active in supplying a demand once it is created. The imagination of the Chinese merchant seldom goes beyond what has been customary in the past.

Likewise, it was usual in many cities for agents of California packers to express the opinion that the small can of fruit would not sell in Asia because people only used canned fruit in entertaining friends and for that purpose the reduced sizes were too small. Agents often stated that, although they had placed small cans in 1-pound and 8-ounce sizes on sale, there was small demand for them; they had hoped they would succeed but the attempt was a failure. Therefore, the matter was settled in their minds: only the large No. 2½ can would sell and that only to the rich.

The fact is that no attempt has been made to sell the small sizes to the potential consumer. Agents have, perhaps, induced and even compelled the dealer to buy one or two cases of the small cans. After waiting for some time, the agent inquired if the dealer wished to buy another stock and was told by the dealer that he still had on hand most of the cans he unfortunately bought. There was no repeat order, so the agent correctly inferred that there was no demand.

No real attempt anywhere has been made to place the small sizes before the consuming public in such a way as to create a demand. Many householders declared they had never seen the small cans. On investigation it often developed that these were on sale, if you inquired for them, in their favorite store. The investigators frequently found a few 8-ounce cans on the top shelf. The Chinese merchant was often voluble in explaining that nobody asked him for them. His prices were usually 10 to 50 per cent higher than the cost warranted.

On the other hand, executives of the great American corporations which are successfully selling to Asiatics, on seriously considering the proposal as a possible American enterprise, expressed their belief that the small unit of canned or dried fruit might reach a large sale if modern merchandising methods were applied. Many educators, statesmen, and social workers stated that the way to reach a large volume of sales for American canned or dried fruits was through the introduction of the small unit to the native consumer of the upper and middle classes. All agreed that this could not be accomplished by merely inducing a few merchants to place goods on sale. All realized that sustained and skillful trade promotion must accompany their introduction and that if possible, the price should be adjusted so that a package would retail for a coin of local currency.

Small packages of dried fruit, particularly prunes and raisins, offer even better opportunities for reduction in size of package than do canned fruits. The cost of the tin imposes an obstacle that limits the size to which canned fruits can be reduced—and at present canned fruit requires a tin container. Dried fruits, on the contrary, can be reduced to a very small package and, if necessary, can be sold without any package at all, even one fruit at a time. They thus present some of the merchandising possibilities of the cigarette which, generally, has succeeded because it was possible to sell one cigarette rather than a package of them.

The small can of fruit is essentially a new commodity for a new public. Any development of fruit markets in Asia means that old customers must use the fruit in new ways, or that new customers must be found, or both. In either case, since the product is a luxury rather than a necessity, the new customers must be introduced to the product; the old consumers must have the new use put before them.

The Chinese merchant is not fitted to do either of the above. The European agent is not equipped to do it for him. Passive order-taking on the part of the Chinese merchant and of the European agent have been characteristic of the Asiatic market for American canned fruits.

So far as the Chinese merchant has been active it has been with regard to underselling his competitors. So far as the European agent has been active, it has been in supplanting the use of some other brand by that of his own. Neither merchant nor agent has sought to create new demands. They could not do so. Money and time spent on creating new demands merely put their competitor in a better position to make lower prices. The competitor might meet trade promotion by the expenditure of an equal sum on lowered prices. Thus everybody scrambles for the few old customers. Nobody endeavors to create new uses and new demands.

The present system of collecting indent orders through agents will not develop a large market in the Far East for California fruits. The present system whereby various companies and corporations marketing fruits under certain brands act through agents in Asiatic territory is cheap but inefficient. Usually these agents represent a large number of manufacturers, among whom the exporter of American fruits is one. Many agencies with limited personnel and small offices stated that they represented from 20 to 200 manufacturers. They sometimes represent everything from locomotives and aeroplanes to crockery and canned goods. Their offices are often a medley of dusty and cluttered samples, among which a few rusty cans of California fruit may with persistence be found in a corner. Because hitherto these agents have not been furnished with any material funds for trade promotion and because the active demand for American fruits is small, they have in many cases found the business far from lucrative. In any event, when handling such a large number of entirely different commodities, their attention can at best be directed to any one of them in small proportion. These agents accept or collect orders which are indented to America.

The whole system whereby a merchant is required by draft or deposit of security to order fruits far in advance, thereby anticipating his wants, might be fairly efficient when an irresistible demand has already been created; it is far from effective when the demand is latent or non-existent. For American canned or dried fruit to sell in any large quantities in Asiatic territory, stocks must be maintained at central points so that merchants can obtain the fruit quickly after their orders are placed without the deposit of money for a considerable period in advance.

Furthermore, the attention of an entire corps of people must be directed toward the creation and supply of this demand. The Asiatic market will not react to disinterested selling. At the present state of demand for American fruit, Asiatic merchants in large numbers will

not come to agents and demand it. In the past, the market has chiefly been supplied through passive order-taking, because the agents would not, or could not, adopt any other method.

The writers cannot claim to be the first to have made the above observation. G. O. Woodard, Trade Commissioner at Shanghai, in an unpublished report on "The Canned Fruit Market in China," dated December 23, 1927, in discussing the situation in that market stated:

In the two or more decades that American canned fruits have been offered in the China market, with possibly one exception, not one of the canned fruit lines sold has been represented by an organization in a position to study the requirements of the China market with a view to formulating a constructive selling program based on the peculiarities of this particular market. There has been very little attempt, if any, at any really sound, constructive selling program. There has been only passive order taking.

It is quite natural that this should be so since the general import house is concerned with twenty or thirty or ever forty or fifty items more profitable from the standpoint of returns. They are obviously, in the business for immediate profits and cannot possibly become concerned with developing an organization to undertake extensive sales promotion work of a pioneering nature that would perhaps only yield results five or more years hence. . . . In the light of the actual returns from two or more decades of passive handling of already established brands of canned fruits, however, until such time as there is individual or group endeavor put forth along the lines of studying the infinite peculiarities of the China foodstuffs market, it is quite patent that growth in sales will continue to be slow, due primarily to passive and disinterested handling, lack of constructive selling programs, and the almost total absence of sound merchandizing interest of whatsoever nature.

The above statements, made with regard to the merchandizing system in China might be applied with equal truth to the situation throughout the entire Far East.

By skillful extensive and sustained trade promotion it would be possible to increase several fold the exports of certain fruits to the Far East. Although in Asia trade promotion has been successfully waged for many American commodities, no considerable trade promotion has been conducted for American fruits. The nearest approach was made by the Sun-Maid Raisin Growers Association which about thirteen years ago devoted a small amount of funds to popularizing their product among the peoples of the Far East. This resulted in a tenfold increase in the export of raisins to Asia so that at the present time the exports of grapes in that form exceed the combined exports of all other fruits in all forms (see figure 7).

Several factors contributed to this result. First, this organization established its own representatives in the countries in which it was

chiefly operating. It did not operate through agents or indirect representatives. Second, at central points it established stocks on hand. It did not attempt to create a large business through indent orders. Third, it packed the commodity in small packages. It did not expect to make the large package, originated for the use of rich America, fit the needs of the poor Orient. Fourth, it made these packages and this fruit known to the people through trade promotion in various forms. It did not depend merely on advertising, valuable as that may be in conjunction with other methods. Fifth, it established its own corps of salesmen who took orders for native and European wholesalers at the expense of the association. It did not depend on Chinese wholesalers to create a demand.

Viewed from the standpoint of the large volume of the raisin crop, the enterprise in Asia was on a small scale. The results have been comparable to the effort expended. Larger funds and greater efforts would have brought increased results. Nevertheless, compared with the markets for other American fruits in Asia, the demand for raisins is so much larger that it dominates the whole horizon.

To materially increase our markets, American fruits and their virtues must be made known among the people to whom they are to be sold. Except for raisins, American fruits are known among only comparatively small groups of people in all the countries of the East. The great majority of Chinese, Indians, and East Indians have never seen a prune and would not recognize it if it were shown to them. These people will not rush to demand the product, even though a package be standing on the shelf of their favorite shop or store. They must be told of its virtues and its uses. Such education over enormous territories and their crowded populations cannot be accomplished quickly or easily. Time, effort, skill, and money would be required for the success of the enterprise. Nevertheless, these same people have been educated to the use of kerosene oil, cigarettes, wheat flour, baby foods, and other commodities which a generation ago were entirely foreign to them. The task is not impossible; it is merely difficult.

Methods of trade promotion in Asia have been so extensively discussed under previous sections of this report that recapitulation is unnecessary. Although the types of trade promotion adapted to various peoples and lands vary somewhat, certain general principles appear to be outstanding in the experience of organizations successfully selling in this market. Among these principles are (1) an efficient personnel must be assembled based upon high-class European or American executives who know the people as well as the country. These must be supplemented with trained and educated natives.

(2) Extensive distribution must be accomplished before efforts are made to induce the public to purchase. The native population must find the product available when they respond to the promotional appeal. (3) The product must be purchasable in a small unit for a small initial expenditure. (4) Extensive educational propaganda must be conducted to enable the people to test the product through a free or very cheap sample. The campaign must also emphasize the value of the product and the benefits which will accrue from its use. In fruits, the value to be emphasized is that better health and greater strength are to be gained from their use. In such a campaign advertising in newspapers plays but small part. Personal contact with potential consumers at fairs, festivals, and other gatherings is a more effective method. (5) Stocks must be on hand to replenish supplies of retailers at short notice.

From a practical standpoint, the maintenance of an organization of high-caliber personnel might prove one of the most hazardous aspects of the enterprise. The number of persons who have an intimate knowledge of the East and the people therein is decidedly limited. Those of their number who have high ability are very much fewer. The East is not a region which is either stimulating or inspiring. It is enervating and disillusioning. Those able to combat these influences successfully are few indeed. A high executive of a great corporation which is successfully merchandizing in the Far East warned the investigators that the gathering, training, and maintenance of a competent personnel would be the most difficult phase of any trade-promotion enterprise. Indeed, he went so far as to state that executives in the East are usually men who could not hold comparable positions in America or Europe. If this be true it is plain speaking, but in discussing an enterprise that may involve the welfare of large numbers of people in America, we must state the facts as we see and find them.

Often, under Oriental conditions, Europeans and Americans fail to measure up to the standards of business initiative maintained at home. It is common throughout the entire Far East for Europeans to work five hours or less a day. Often these hours are rendered ineffective by other hours that come between. Whether an organization, even of high personnel, could be assembled in Asia and maintained at the level of business efficiency necessary to secure large results is a question that should be seriously considered in any definite proposals for such an undertaking. There are, of course, many exceptions to the assumptions made above. Since, however, they are exceptions rather than the rule, the proposal must face conditions as they exist.

If large funds became available for a trade-promotion enterprise in Asia and if these were skillfully employed, it then would be within the bounds of reasonable expectation that within the next five or ten years it would become possible to market in Asia several times as much fruit as is now exported thereto.

In order to illustrate the statement that adequate trade promotion over a period of years might increase markets for California fruits several fold, the following calculation may be used.

India probably represents one of the most difficult countries for trade promotion because of the peculiar food and religious habits of many of its people, because of the very high percentage of its population who live in hundreds of thousands of small villages, and because of the low average purchasing power of the population. Let us calculate the possibility India presents on the basis of the conclusions of this report.

Almost 90 per cent of all of the 318,942,480 people of India live in small villages. Most of them are very poor. To be conservative, let us assume that not a single can of fruit can be sold among these people; that all development of our future markets would lie entirely in the towns and cities. In these, however, there are 32,500,000 people. The best estimates given to this investigation evidenced that at least 10 per cent of the people in cities and towns could afford to occasionally eat canned fruit provided they desired to do so. Therefore, let us further assume that 90 per cent of the people who live in the towns and cities will not or cannot eat canned fruit under any conditions whatsoever. We have now brought our possible potential consumers down from about 319,000,000 to 3,250,000.

In India, California canned fruit now sells almost entirely to Europeans and to some of the half-castes. A very few Indians also eat it. There are in India about 174,000 Europeans. There are about 113,000 half-castes. Thus, the total white and half-white population is somewhat less than 300,000. If, to be again conservative, we assume that all of these now eat canned fruit and would eat no more under trade promotion, and if we likewise assume that an equal number of Indians, numbering 300,000, now eat canned fruit, which is probably far beyond the fact, we then have a present consuming public of certainly not more than 600,000. Many of the Europeans do not live in towns and cities. They are scattered at every administrative office throughout India. Many others do not eat any measurable amount of canned fruit. But if to be on the conservative side we deduct all the Europeans, all the half-castes, and 300,000 Indians who already may possibly consume canned fruit from the upper 10 per cent of the

city and town population, we have thus further reduced our possible new consumers in all of India down to 2,650,000.

But these 2,650,000 are men, women, and children. The average size of the family in India is 4.9 persons.* It would be fair to assume, then, that among these whom we are discussing there are at least 540,000 heads of families. These are natives who belong to the upper 10 per cent of the population of towns and cities and who do not now consume California fruits. If through trade promotion these heads of families could be induced to buy occasionally one can of fruit it would increase our present markets several fold. If these heads of families each bought the equivalent of one No. 2½ can of fruit once in two months, they would consume 3,240,000 cans of fruit a year; or, at 24 cans per case, 135,000 cases a year. The present consumption in India is about 50,000 cases. Such increased consumption therefore would be over two and a half times our present markets. In other words, we would sell more than three and a half times as much as we now do.

It may be contended that not all the upper 10 per cent of the families in towns and cities could be reached. Doubtless this is true. However, it can be contended likewise that the consumers who would be reached would probably consume canned fruit more frequently than once in two months. The contention might further be made that many of the 90 per cent of the population in towns and cities, not counted in this estimate, would consume canned fruit occasionally if it were made fashionable among the upper classes of the population. Furthermore, it can be claimed with equal strength that the fashion once having been created in India, material consumption could be developed among some of the people in the villages who spend large amounts of money on weddings, funerals, and other festivals. It can further be claimed that under trade promotion Europeans could be induced to consume more canned fruit than at present. On the whole, our basis of estimate is probably very conservative.

The above discussion is given merely to indicate that because our present markets are small, the primary question involved in any scheme of trade promotion is not the buying power of the population, but the question whether ultimately those who have this buying power can be induced to include California fruits among the luxuries they purchase, and if so, whether the consumption created would repay the time, effort, and money expended. In every country of eastern Asia, the per-capita income is very low; everywhere the masses of the people are poor. However, in considering the development of markets

* India Year Book, 1928. Published by "The Times of India," Calcutta.

for American fruits we are not concerned as yet with per-capita wealth nor with the average man. Our sales of imported fruits in Asia are so small that we have not yet saturated the market among those who have the money to purchase.

The question might be raised as to what can be done to improve our present fruit markets in Asia without the expenditure of any large funds for trade promotion or any considerable revision of the present marketing methods. Under such conditions, little more can be accomplished than is now being done. There are no areas in Asia whose active wants for California fruit at present prices are not supplied. Something, however, would be accomplished through giving greater prominence to the smaller-sized package, either of canned or dried fruit. Furthermore, various packers might find it profitable to establish at favorable points representatives instead of agents. This, of course, is more expensive since the overhead must be carried, whereas the establishment of an agency merely requires the payment of a small commission on whatever sales are made. Nevertheless, it is striking that in many places of the East the popular brand which rules the market is that for which a representative has been established over a term of years or where an agent is employed who does nothing else whatsoever than sell this particular brand. If, furthermore, the various companies could make appropriations sufficient to enable these representatives to do a considerable amount of free sampling and a limited amount of advertising in the vernacular press, sales would undoubtedly increase.

Lower retail prices would increase markets for fruit in Asia. If there is such a thing as a 'price market,' it is in Asia. Here, if anywhere, small differences in price determine whether a purchase shall or shall not be made. Even the so-called middle classes are poor when judged by American standards. Small economies become large when transported to the Far East. Reductions in price, even though small, are therefore of great importance.

One of the difficulties faced by imported fruits in the Far East is the fact that their local prices are quoted in the currency of the country, which has a unit of value lower than that of the American dollar. The Chinese dollar, the Indo-Chinese piastre, the Siamese tical, the East Indian guilder, and the Indian rupee all have values that range around four-tenths of an American dollar. But such is the psychology of the East, that the value of these coins come to appear, even to Europeans, as large as that of the American dollar. Many of these coins resemble in appearance the American silver dollar and its subdivisions, and procure as much of local service or value as

would the similar coins in America. The silver dollar of China closely resembles in size and appearance that of America. The quarter-guilder of the Netherland East Indies looks like the American 25-cent piece; the 10-cent piece of Ceylon is almost a counterpart of the coin by the same name at home, and yet these all have but 40 per cent of the gold value of similar American coins. However, locally for many things they are practically their equivalent. In taxi fares, personal services, and small purchases the coin bearing the same name produces the same return. Thus, those resident in the Orient come imperceptibly to feel that a dollar of Chinese currency is there as precious as the American dollar at home.

The American housewife in China, calling at her favorite provision store enquiring the price of a can of peaches is told that it is on sale for one dollar a can. She exclaims that this is very expensive and turns immediately to some local bananas which she is told are 2 cents each. She is likely to go home with a half dozen bananas, meanwhile exclaiming at the high price of American fruits. If at home she were told the price was 40 cents, she would probably not consider this as beyond the possibility of purchase, even though it were a few cents higher than the price to which she was accustomed. In the translated currency her sense of economy prevents the purchase.

Thus, entirely without thought of deception, she may write to friends at home that, "I saw some California grapes for sale today and, would you believe it, they were 50 cents a pound. Of course they were too expensive for us to afford. When I think of the grapes selling for almost nothing on the farms at home I wonder why someone doesn't send grapes into this market." Because she has become accustomed to the coinage of the East, she entirely forgets to mention that the price quoted is in local currency and that the grapes were actually on sale at 20 cents a pound in the currency of those who read her letter in America. She likewise ignores the seven thousand miles that stretch between the farms on which these grapes were produced and the Chinese fruit store where they were for sale. She knows little of the large number of necessary services performed in conveying these grapes from one place to the other and arranging them for display before her eyes in a fruit store convenient to her home in a distant land.

One of the factors militating against the sale of American fruits in the East is, thus, the low unit of local currency. Slight decreases in price which may be brought about by improved methods of marketing and transportation are of high importance because these decreases become multiplied when rendered into the local currency of the country where the product is sold.

If America were able to sell its fruit in Asia at radically lower prices than those prevalent at home, large markets might be quickly developed. At present we attempt to sell fruit at higher prices in Asia than in America. Thus in lands where native fruit is always cheaper and often more abundant than in the United States we strive to sell our competing fruits at higher prices than at home. If it is difficult to sell high-priced fruit to the comparatively rich Americans, it is much more difficult to sell it at still higher prices to poor Orientals.

In Asia many American commodities sell at prices as low or lower than they do in America. The great tobacco and oil companies first embarked upon the extensive development of Asiatic markets because of a situation identical with that which faces fruit-growing in California. In both oil and tobacco there arose an increased and uncontrollable production. To save prices from going to the bottom, increased consumption was necessary. To secure this increased consumption in Asia it was recognized that oil and tobacco must sell at low prices. Kerosene must successfully compete with the native vegetable oils; cigarettes must compete with native tobacco in cheroot, or pipe. Even today, kerosene oil and cigarettes sell as cheaply, or more cheaply, in most of the countries of Asia than they do in America.

Any measure that would remove a considerable percentage of the deciduous fruit production of California from customary marketing channels would not only raise prices but would also increase the gross return. In the spring of 1929 a frost decreased the expected tonnage of deciduous fruits in California by about 23 per cent. The remaining 77 per cent was marketed for about \$27,000,000 more than the entire crop would have brought had there been no frost. Although many individual farmers whose entire crop was lost suffered disaster, the state as a whole benefited by a larger return than if there had been no abnormality of weather.

If, thus, an increased return resulted from destruction of almost one-fourth of the crop, an even greater benefit might be expected through marketing the surplus among new consumers at low prices. Three results might accrue from such a procedure: (1) the overproduction would be removed from the present markets thus causing a greater gross return; (2) some revenue would be derived from the sale of the surplus; (3) new consumers would become acquainted with the product and thus educated to consume it so that the demand would continue even though prices were gradually increased.

However, to sell fruit in the Orient at lower prices than in America would require a complete and radical revision of the whole sales

program, the discussion of which is not within the scope of this report. Nevertheless, in presenting the results of a study of marketing in Asia it is necessary to emphasize that if prices were radically reduced the entire picture would change and the possibility of increased demands become vastly greater.

Even extensive trade promotion, backed by large funds, cannot create in Asia large enough fruit markets to materially help in raising farm prices within the probable duration of the present price depression. At the present time the most desirable result that could be accomplished for the farmers of California who are producing the fruits which have ruled at a low price would be to market a sufficient volume of California fruit in Asia or elsewhere so that the price level would be moved upward in the home markets to the point of cost of production or above. In order to do this it would be necessary to develop within a short time a demand sufficient to remove from the present markets in America and Europe considerable percentages of California's various fruit crops. The so-called 'surplus' varies for different fruits. In some fruits an increase in demand of 25 per cent or more would probably be required to restore the price level prevalent at the time the trees were planted.

Within the probable duration of the present price depression, and at present exported prices, there does not appear to be any opportunity to develop markets in Asia of sufficient magnitude to accomplish this greatly desired result. Even though a very extensive trade promotion campaign were conducted with all its attendant costs, a market cannot be created for fruit at present prices in large enough volume in short enough time. Since, unfortunately, our present exports to Asia are small, even an increase of several hundred per cent would not alone be sufficient to solve a surplus problem of the magnitude of that now extant in California.

Surpluses in fruit production ultimately cure themselves through the coming of old age to trees and vines so that the acreage gradually decreases. Surpluses are also cured through the gradual development of demand. Such development may come about through the increase in the population of America and an increased per-capita consumption of fruit. Surpluses are also cured by lowered costs of production, and the pulling out of acreages on which costs are too high. A profitable price is that which is above cost of production. These costs vary from man to man and from farm to farm. Those first emerge from under a surplus market who have the best land and the most skillful methods. Although it is probable that low farm prices will, under present market demands and marketing methods, continue for some

years, they will ultimately be restored to equilibrium through the normal action of economic forces.

Trade promotion for certain California fruits in Eastern Asia will accelerate the movement toward equilibrium between costs and returns, but Asiatic markets cannot at prevalent prices be created quickly enough to act as a cure in the present crisis. However, it must be remembered that so far as can be foreseen, these surpluses are likely to be recurrent during forthcoming years, despite our developing system of economic education. Even with an adequate system of warnings and economic forecasts, human nature is likely to be the same in the future as in the past. In times of relatively good prices greatly increased plantings will probably be made. These bring lower prices in their wake.

If conducted for a considerable period of time, trade promotion might secure markets in Asia which would be of material assistance in sustaining prices in future years. Even though extensive trade promotion in Asia might not succeed within the next five or ten years in marketing a volume of the California crop comparable to the present surplus or that now sold in Europe, it is perfectly clear to all students of Oriental affairs that great changes are coming in Asia and that within the next quarter of a century these peoples will rise to an economic level which they have not heretofore enjoyed. Furthermore, it is probable that this rise in financial security will mean the adoption of European standards to a degree not hitherto deemed possible. Any extensive trade promotion for American fruit in Asia should be undertaken not only with a view to developing the present markets but also with the object of building for the future. If California is to continue to develop her fruit industry faster than the increasing population of America warrants, markets must be built abroad. Such structures require long periods of time.

Growers in other countries are trying by educational methods to develop the demands for their product. India taxes every grower of tea on the basis of his production. The funds thereby accumulated are devoted to an attempt to induce the world to drink more tea, preferably from India. Extensive advertising and educational campaigns are in operation in India, America, and elsewhere. It is said that the per-capita consumption of tea in India has been increased 50 per cent, but that in America the campaign has not been so successful.

Australia has an organization, fostered by government, to export the dried fruit in excess of the needs of that continent. A board annually determines how much dried fruit must be shipped for export

and the price that must be charged for it to secure its sale outside the country. Fruit to be shipped abroad is thus sold by a sort of pool at a lower price than that charged in Australia.

In considering the possible development of American markets in Asia, it should be realized that backward countries may be expected to go through three periods of development. In the first period there is a small market for European foodstuffs as well as for other imported commodities because the people have not yet felt the need for them and have low standards of living caused by their limited purchasing power.

The second period is when through the development of hidden resources in timber, mines, and water power, and through the use of machinery and manufacturing devices there comes a great rise in the economic level of the people so that they have the desire for higher standards of living and the luxuries that go with them.

The third period is when such a country seeks to manufacture these luxuries itself, thereby lessening the outgo to other nations. Such countries usually attempt through prohibitive tariffs and otherwise to develop their own manufacturing and agricultural industries in order to provide a higher economic return and to improve their balance of trade.

The United States has passed through the first two stages of development and is now well advanced into the third. Japan is rapidly emerging from the second into the third period. Most of the countries of the East, however, are still in the initial era. After they pass from the first into the second development, as they are likely to do within the next quarter of a century, they will present a marked opportunity to those countries of the world that by spade-work in advance have prepared themselves to take advantage of the opportunity. Ultimately, in the dim future, these countries will, like Japan, merge into the final development wherein it becomes much more difficult than in the intermediate period to find large markets for those commodities which can be produced or manufactured within their own borders.

Viewing, however, the immense masses of the population it is improbable that this last phase will be reached within calculable time for most of the areas of the Far East. It is rather for the period during which the countries of Asia may be expected to develop and expand that the California fruit-grower has an opportunity to occupy these markets.

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TABLE 76

UNITED STATES EXPORTS OF FRESH, CANNED, AND DRIED FRUITS, 1922-1928
(Fresh Equivalent.)

	1922	1923	1924	1925	1926	1927	1928
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
<i>Fresh</i>							
Total.....	455,190	727,084	897,893	800,136	1,144,908	1,216,542	1,092,470
Europe.....	185,102	370,511	510,288	425,958	686,028	727,563	591,260
Asia.....	8,720	12,756	18,030	17,214	22,903	23,791	25,456
<i>Canned</i>							
Total.....	200,606	144,515	235,215	272,802	244,090	265,894	330,704
Europe.....	178,342	112,982	206,050	239,606	206,940	225,045	283,106
Asia.....	6,789	7,096	7,010	7,887	10,271	9,587	10,369
<i>Dried</i>							
Total.....	922,260	762,628	1,595,800	1,326,832	1,454,228	1,926,760	2,340,536
Europe.....	647,952	445,808	1,237,700	1,011,760	1,080,816	1,548,688	1,885,224
Asia.....	26,588	47,788	49,208	33,104	42,652	39,628	62,836

TABLE 77

PERCENTAGE OF UNITED STATES PRODUCTION OF CERTAIN FRUITS EXPORTED
TO ALL COUNTRIES, AVERAGE 1924-1928

Fruit	Total <i>per cent</i>	Fresh <i>per cent</i>	Canned <i>per cent</i>	Dried <i>per cent</i>
Apples	10.8	8.2	10.7	62.3
Apricots	43.5	....	29.8	55.4
Cherries	0.7	....	3.0	....
Grapes	14.1	1.3	....	31.2
Peaches	5.3	0.9	16.3	16.8
Pears	13.3	7.6	43.8	....
Prunes	51.9	....	....	51.9
Grapefruit	5.9	5.9	....	....
Lemons	3.4	3.4	....	....
Oranges	6.8	6.8	....	....

TABLE 78

UNITED STATES EXPORTS OF FRUITS TO ORIENTAL COUNTRIES
AVERAGE 1924-1928

Country	Fresh <i>pounds</i>	Dried <i>pounds</i>	Canned <i>pounds</i>
British India	137,992	128,777	1,448,000
British Malaya	1,426,948	99,815	727,489
Ceylon	507,665	42,277	199,366
China	5,413,234	5,146,120	1,611,439
Java and Madura	366,305	175,752	1,407,954
Other Netherland East Indies	21,875	52,588	731,946
French Indo-China	9,277	113,428	190,498
Hongkong	2,907,838	453,597	383,634
Japan (including Korea)	1,180,846	3,589,273	959,564
Kwantung	6,792	431,441	235,043
Philippine Islands	9,510,332	824,561	1,306,678
Siam	6,460	18,465	39,194
Soviet Russia in Asia	75,521	29,879	22,260
Total Orient	21,571,150	11,105,973	9,263,065

TABLE 79
PERCENTAGE OF UNITED STATES PRODUCTION OF CERTAIN FRUITS
EXPORTED TO ASIA, AVERAGE 1924-1928

Fruit	Total per cent	Fresh per cent	Canned per cent	Dried per cent
Apples	0.2	0.1	0.2	0.6
Apricots	0.8	....	0.6	1.0
Cherries	0.3	....	1.3	....
Grapes	0.9	0.1	....	1.9
Peaches	0.1	0.01	0.3	0.1
Pears	0.1	0.02	0.6	....
Prunes	0.3	....	....	0.3
Grapefruit	0.1	0.1	....	....
Lemons	0.5	0.5	....	....
Oranges	0.2	0.2	....	....

TABLE 80
TOTAL EXPORTS OF FRESH FRUITS FROM THE UNITED STATES, 1926-1928

Countries in Orient	1926		1927		1928	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
British India.....	335,096	5,250	54,386	3,997	14,092	995
British Malaya.....	1,427,416	97,460	2,195,854	135,959	2,566,150	157,330
Ceylon.....	283,360	19,232	1,274,322	58,529	903,856	58,863
China.....	7,202,745	466,330	5,616,754	379,746	5,934,846	416,214
Java and Madura.....	333,183	15,902	425,647	24,615	723,564	34,401
Other Netherland East Indies..	6,155	396	44,926	2,810	52,494	2,249
French Indo-China.....	29,344	2,140	9,270	642	6,644	512
Hongkong.....	3,275,572	180,150	3,245,503	199,655	3,600,381	237,407
Japan (including Korea).....	1,111,182	82,592	1,501,135	126,660	1,564,704	133,055
Kwantung.....					12,078	822
Philippine Islands.....	9,049,449	545,381	9,623,825	576,442	9,968,736	627,627
Siam.....	15,705	693			252	10
Soviet Russia in Asia.....	13,302	862	21,334	1,103	42,316	3,780
Total.....	23,082,509	1,416,388	24,012,956	1,510,158	25,390,113	1,673,265

Continents	1926		1927		1928	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Europe.....	686,027,566	29,585,465	727,562,746	33,068,649	591,260,479	27,878,733
North America.....	386,453,427	18,863,543	418,979,883	21,918,748	423,643,668	23,205,948
South America.....	44,984,070	2,742,085	35,921,468	2,514,171	44,533,494	2,686,424
Asia.....	22,902,661	1,417,151	23,790,934	1,514,301	25,455,595	1,677,032
Oceania.....	2,306,309	155,344	7,483,230	528,519	5,431,125	438,157
Africa.....	2,233,886	154,494	2,803,299	184,773	2,145,230	129,333
Total.....	1,144,907,919	52,918,082	1,216,541,560	59,729,161	1,092,469,591	56,015,627

TABLE 81

TOTAL EXPORTS OF FRESH FRUITS FROM CALIFORNIA, 1927-1929

Countries in Orient	1926		1927		1928	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
British India.....	50,775	3,882	3,510	190	40,222	2,149
British Malaya.....	2,132,285	134,684	2,413,697	152,910	3,212,999	222,437
Ceylon.....	793,551	51,415	862,093	58,266	976,172	62,797
China.....	4,613,534	328,301	3,900,470	335,005	5,450,540	412,477
Java and Madura.....	414,224	24,570	711,307	33,978	1,208,065	76,550
Other Netherland East Indies..	40,532	2,478	62,880	2,672	23,328	2,013
French Indo-China.....	9,287	642	6,334	512	75,923	7,276
Hongkong.....	2,045,771	136,895	2,281,029	171,383	2,213,152	162,411
Japan (including Korea).....	1,451,677	122,108	1,549,460	131,417	1,711,253	152,802
Kwantung.....			11,895	820	27,375	2,538
Philippine Islands.....	5,897,689	401,189	5,911,472	463,508	6,386,452	481,034
Siam.....					13,350	1,475
Soviet Russia in Asia.....						
Total.....	17,449,325	1,206,164	17,714,147	1,350,661	21,338,831	1,585,959

Continents	1926		1927		1928	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Europe.....	57,957,489	3,300,523	39,108,935	2,139,889	123,271,008	5,245,338
North America.....	6,655,240	388,941	8,716,778	553,365	9,679,400	529,156
South America.....	254,865	13,663	518,808	23,289	1,587,176	110,749
Asia.....	17,482,925	1,207,764	17,715,747	1,350,811	21,345,831	1,586,559
Oceania.....	7,121,949	513,886	5,299,447	433,739	8,296,318	562,473
Africa.....	119,308	5,379	315,192	11,297	611,692	22,981
Total.....	89,591,776	5,430,156	71,674,907	4,512,390	164,791,425	8,057,256

TABLE 82

TOTAL EXPORTS OF CANNED FRUITS FROM THE UNITED STATES, 1926-1928

Countries in Orient	1926		1927		1928	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
British India.....	1,405,990	217,507	1,653,864	242,646	1,664,348	242,211
British Malaya.....	1,006,461	124,377	898,417	111,197	750,156	97,680
Ceylon.....	183,392	26,308	255,824	34,567	282,883	40,880
China.....	1,566,333	195,507	1,896,496	210,800	1,958,943	233,927
Java and Madura.....	2,155,197	254,356	1,080,064	129,853	1,515,486	176,688
Other Netherland East Indies.....	1,117,996	128,068	755,469	85,867	950,913	100,110
French Indo-China.....	221,944	27,044	237,540	26,253	227,734	26,558
Hongkong.....	318,687	42,812	517,108	63,375	424,123	52,982
Japan (including Korea).....	1,078,393	104,305	825,965	86,992	878,041	86,809
Kwantung.....	230,051	20,088	194,712	17,536	513,933	43,988
Philippine Islands.....	1,255,485	169,085	1,466,356	168,924	1,320,054	172,397
Siam.....	37,946	6,452	48,687	8,106	49,658	7,717
Soviet Russia in Asia.....	18,555	2,246	12,790	1,482	65,485	6,643
Total.....	10,596,430	1,318,155	9,843,292	1,187,598	10,601,757	1,288,590

Continents	1926		1927		1928	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Europe.....	214,182,600	22,014,642	232,921,532	21,777,461	293,015,405	26,965,820
North America.....	22,760,688	2,537,885	25,759,459	2,666,474	31,379,439	3,015,557
South America.....	3,348,319	446,842	3,387,797	429,546	2,976,057	355,538
Asia.....	10,631,360	1,322,412	9,922,874	1,196,110	10,731,675	1,301,651
Oceania.....	939,102	103,988	1,679,187	169,617	2,529,909	214,616
Africa.....	771,296	93,319	1,529,980	157,045	1,646,459	173,093
Total.....	252,633,365	26,519,088	275,200,829	26,396,253	342,278,944	32,026,275

TABLE 83

TOTAL EXPORTS OF CANNED FRUITS FROM CALIFORNIA, 1927-1929

Countries in Orient	1927		1928		1929	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
British India	1,101,438	154,755	1,216,567	173,089	1,591,484	232,859
British Malaya	894,055	109,793	743,842	95,876	728,042	95,285
Ceylon	247,030	33,591	274,308	39,760	212,232	30,900
China	1,087,185	149,746	1,329,593	186,499	843,917	124,161
Java and Madura	1,051,328	127,544	1,488,850	174,410	1,902,930	240,961
Other Netherland East Indies	749,749	85,103	945,092	99,538	987,523	118,799
French Indo-China	237,540	26,251	227,734	26,558	248,319	32,484
Hongkong	460,800	58,353	345,167	47,399	426,913	61,170
Japan (including Korea)	492,310	57,445	514,443	58,904	604,229	72,486
Kwantung	50,650	6,982	134,292	17,097	180,126	23,510
Philippine Islands	1,125,345	143,005	1,060,968	151,752	1,131,807	153,418
Siam	48,268	7,968	49,118	7,603	31,702	5,111
Soviet Russia in Asia	3,150	449				
Total	7,548,848	960,985	8,329,974	1,078,485	8,889,224	1,191,144

Continents	1927		1928		1929	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Europe	155,769,117	15,538,288	195,220,752	19,265,684	185,050,263	20,144,733
North America	7,114,586	725,671	8,491,235	863,887	8,623,189	963,775
South America	2,091,726	256,243	1,652,620	196,638	2,402,041	307,253
Asia	7,561,517	962,298	8,404,669	1,084,769	8,947,940	1,197,255
Oceania	1,252,645	138,174	2,120,948	182,749	1,085,476	118,958
Africa	635,847	61,246	1,021,539	98,281	1,093,607	125,757
Total	174,425,438	17,681,920	216,911,763	21,692,008	207,202,516	22,857,731

TABLE 84

TOTAL EXPORTS OF DRIED FRUITS FROM THE UNITED STATES, 1926-1928

Countries in Orient	1926		1927		1928	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
British India.....	107,479	17,447	105,883	13,862	300,068	28,047
British Malaya.....	135,388	17,498	125,548	13,434	155,230	16,346
Ceylon.....	38,128	7,178	69,334	8,740	62,752	7,756
China.....	4,940,329	398,627	4,019,544	309,927	7,727,155	442,634
Java and Madura.....	204,155	30,062	140,960	18,658	323,385	37,475
Other Netherland East Indies..	53,878	7,382	48,516	6,122	103,049	11,412
French Indo-China.....	56,545	6,880	151,103	12,259	265,174	25,442
Hongkong.....	198,597	21,961	483,474	45,273	1,187,196	90,024
Japan (including Korea).....	3,520,409	362,548	2,993,069	232,423	3,168,938	221,968
Kwantung.....	406,712	39,031	452,111	34,651	957,037	50,567
Philippine Islands.....	615,876	72,585	928,785	94,621	1,177,486	109,656
Siam.....	29,144	4,596	10,741	1,120	43,868	4,150
Soviet Russia in Asia.....	25,645	4,310	49,978	5,804	6,488	953
Total.....	10,332,285	990,105	9,579,046	796,894	15,477,826	1,046,430

Continents	1926		1927		1928	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Europe.....	270,203,556	23,210,321	387,172,445	27,058,044	471,306,311	32,267,743
North America.....	68,454,781	5,170,640	67,492,662	4,567,354	77,059,429	4,764,660
South America.....	5,621,177	569,287	6,342,611	523,848	10,462,403	797,581
Asia.....	10,663,399	1,022,180	9,907,076	829,676	15,708,743	1,067,835
Oceania.....	8,265,993	667,017	10,120,955	762,693	9,476,030	608,378
Africa.....	343,565	36,603	653,973	55,365	1,121,563	101,101
Total.....	363,557,471	30,676,048	481,689,722	33,796,980	585,134,479	39,607,298

TABLE 85
TOTAL EXPORTS OF DRIED FRUITS FROM CALIFORNIA, 1927-1929

Countries in Orient	1927		1928		1929	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
British India.....	91,381	11,579	294,719	27,356	221,386	28,862
British Malaya.....	125,044	13,359	155,158	16,331	218,212	23,033
Ceylon.....	68,234	8,601	63,375	7,816	70,083	9,528
China.....	4,010,000	309,326	7,719,155	441,583	6,889,788	413,282
Java and Madura.....	140,960	18,658	324,385	37,475	414,625	53,977
Other Netherland East Indies..	48,516	6,122	102,842	11,379	107,024	13,393
French Indo-China.....	151,103	12,259	265,176	25,442	352,174	21,972
Hongkong.....	482,359	45,092	1,182,971	89,657	1,996,379	114,618
Japan (including Korea).....	2,989,146	232,025	3,168,442	221,872	3,409,995	270,798
Kwantung.....	448,361	34,430	949,787	50,567	983,041	50,967
Philippine Islands.....	857,341	99,357	1,175,150	109,464	1,175,627	101,128
Siam.....	10,741	1,120	43,868	4,150	16,261	1,369
Soviet Russia in Asia.....	20,500	2,050	.....	.....	2,600	260
Total.....	9,443,686	793,978	15,445,028	1,043,092	15,857,195	1,103,187

Continents	1927		1928		1929	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Europe.....	251,359,280	17,383,382	368,532,310	24,542,055	170,219,693	16,710,353
North America.....	17,733,322	1,282,713	23,062,622	1,566,701	18,099,666	1,289,254
South America.....	5,786,564	457,811	9,951,653	732,463	6,326,917	554,210
Asia.....	9,482,556	796,513	15,487,505	1,046,339	15,875,976	1,105,445
Oceania.....	10,115,982	762,230	9,473,329	608,023	8,440,611	539,938
Africa.....	437,379	32,840	884,984	79,067	696,714	83,007
Total.....	294,915,083	20,715,489	427,392,403	28,574,648	219,659,577	20,282,207

TABLE 86

UNITED STATES EXPORTS OF RAISINS, PRUNES, PEACHES, AND APRICOTS
TO ASIA, 1910-1928

Year	Raisins 1,000 lb.	Prunes 1,000 lb.	Peaches 1,000 lb.	Apricots 1,000 lb.
1910	331	265	26	117
1911	430	295	52	160
1912	606	531	77	147
1913	897	493	80	183
1914	757	533	69	151
1915	751	574	159	248
1916	886	1,028	253	313
1917	1,032	802	176	207
1918	1,169	864	65	290
1919	2,990	1,036	165	437
1920	2,438	1,128	91	301
1921	2,473	621	92	355
1922	5,369	479	50	393
1923	10,561	587	36	348
1924	10,362	879	65	618
1925	6,711	711	43	356
1926	8,443	963	51	617
1927	7,963	1,184	49	177
1928	13,066	1,760	72	208

TABLE 87

POPULATIONS OF THE COUNTRIES OF EASTERN ASIA

Country	Total Population	Europeans
Japan	59,763,000	8,627
Korea	19,137,698	1,267
China, including Manchuria	425,000,000	251,000
Philippine Islands	12,354,000	11,600
French Indo-China	20,000,000	21,500
Siam	10,000,000	2,000
British Malaya	3,852,842	21,093
Netherland East Indies	51,314,048	169,000
Burma	13,200,000	25,000
India (proper)	305,742,480	149,059
Ceylon	5,124,992	11,000
Total Eastern Asia.....	925,489,060	671,146

TABLE 88
JAPAN, AREA UNDER DIFFERENT CROPS, 1923

	Acres	Per cent of area in crops
Total area	15,257,432	100.0
Area under principal crops	19,678,431	129.0
Foodstuffs	15,008,970	98.4
Industrial crops	744,454	4.9
Fruits	250,000	1.7
Vegetables	128,605	8.4
Green manures	1,060,517	7.0
Mulberry fields	1,322,976	8.7

Data: Page 491, the Japan Year Book, 1929.

TABLE 89
FRUIT PRODUCTION IN JAPAN

Year	Man- darins	Persim- mons	Pears	Apples	Peaches	Grapes	Bitter oranges	Navel oranges	Loquats
	<i>pounds</i>	<i>pounds</i>	<i>pounds</i>	<i>pounds</i>	<i>pounds</i>	<i>pounds</i>	<i>pounds</i>	<i>pounds</i>	<i>pounds</i>
1905.....	192,096	358,215	127,316	50,207	44,766	14,754			
1910.....	303,443	383,381	157,626	105,385	75,828	27,473	93,236	7,460	20,865
1915.....	345,529	396,249	178,045	58,428	100,199	37,455	92,856	19,054	20,468
1920.....	443,479	376,525	223,067	63,770	108,899	55,872	113,564	28,589	21,055
1921.....	32,336	410,316	242,956	60,024	91,508	52,051	102,292	8,642	22,751
1922.....	422,233	385,010	246,107	142,897	87,315	56,633	127,970	27,035	24,256
1923.....	472,027	366,154	222,331	66,168	92,922	61,066	75,976	28,507	25,306
1924.....	443,264	517,934	227,731	87,894	84,122	66,003	104,872	26,257	24,380
1925.....	441,734	354,775	274,481	127,250	98,769	78,284	124,331	27,026	26,307
1926.....	603,718	586,318	290,897	215,161	99,306	89,779	139,366	31,914	25,405
1927.....	478,792	480,437	318,974	157,717	113,713	90,805	107,642	31,310	29,987

Data from E. F. Penrose, Nagoya Commercial College, Japan.

				pounds	dollars	pounds	dollars	pounds	dollars	pounds	dollars
<i>Dried fruits</i>											
Dates.....						54	9	9	4	1,113,822	39,604
Raisins.....						364	59	1		368	60
Others.....				235,472	29,686	1,639	255	123	20	494,392	38,248
<i>All others</i>										1,608,582	77,912
Preserved fruits, including vegetables and nuts.....											
Total.....				123,413	10,804	35,714		757	36	162,758	15,332
										31,954,926	1,126,964
1927											
<i>Fresh fruits</i>											
Mandarins, oranges, kumquats, etc.....				23,398,649	834,925					23,398,649	834,925
Pears.....						848	51			848	51
Others.....				6,168,424	238,646	18,175	414	487	69	6,189,672	239,412
<i>Dried fruits</i>										29,589,169	1,074,388
Dates.....						1,091,481	38,834	50		1,091,676	38,884
Raisins.....						17	3	82	17	747	102
Others.....				297,636	39,185	182,497	5,740	494	24	480,787	45,026
<i>All others</i>										1,573,210	84,012
Preserved fruits, including vegetables and nuts.....											
Total.....				194,496	12,471	104,384	6,534	476	425	303,400	19,906
										31,465,779	1,178,306

TABLE 91

CHINA'S IMPORTS OF FRESH, DRIED, AND PRESERVED FRUITS NOT OTHERWISE
RECORDED, BY COUNTRIES OF ORIGIN, 1925-1927

Imported from	1925		1926		1927	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Hongkong.....	14,142,846	617,034	5,246,003	181,731	18,810,196	514,364
Macao.....	5,125,072	171,788	1,126,639	37,205	3,459,780	101,904
French Indo-China.....	429,856	11,798	5,302,534	83,581	80,398	2,036
Siam.....	417,323	8,044	581,185	10,091	487,188	8,262
Singapore, Straits, etc.....	39,066	2,117	17,600	997	13,866	933
Dutch Indies.....	12,133	717	423,323	5,372	103,997	1,201
British India.....	5,467	683	6,000	1,156	21,066	2,772
Turkey, Persia, Egypt, Aden, etc.	70,665	7,844	45,599	5,004	46,399	4,471
Great Britain.....	15,866	2,093	4,800	684	14,666	1,370
Germany.....	6,133	646	15,066	1,851	16,000	2,061
France.....	54,665	4,853	74,931	4,910	4,933	873
Spain (including Gibraltar).....	533	177				
Italy.....	2,667	207	14,933	1,288	17,733	1,929
Russia and Siberia by land frontier	8,666	1,013	19,200	2,313	933	131
Russia Pacific ports.....	46,399	2,840	143,196	13,374	81,998	6,098
Korea.....	133,463	9,417	184,395	12,185	251,860	13,676
Japan (including Formosa).....	7,110,222	193,724	13,266,735	379,580	13,673,125	331,856
Philippine Islands.....	253,994	13,038	835,979	49,190	364,658	26,101
Canada.....	1,200	105	133	8	16,000	623
U. S. A. (including Hawaii).....	486,921	55,619	1,401,698	96,467	749,448	73,827
Australia, New Zealand, etc.....	1,067	163				
Direct gross imports.....	28,364,224	1,103,920	28,709,949	886,987	38,214,245	1,094,488
Re-exported abroad.....	667	35	16,400	1,159	17,200	588
Net imports from abroad.....	28,363,557	1,103,885	28,693,549	885,828	38,197,045	1,093,900

TABLE 92
NET IMPORT OF ORANGES INTO CHINA PORTS

Net import into	1927		1928	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Aigun	400	42	133	7
Harbin District	4,716,282	253,592	3,407,115	216,443
Hunchun	84,131	3,918	104,797	5,502
Lungchingsun	482,921	23,945	549,719	19,874
Antung	1,525,695	58,940	1,256,502	48,679
Dairen	22,877,428	651,400	21,033,874	587,754
Newchwang	35,866	2,881	47,599	4,412
Chinwangtao	1,333	108	4,266	129
Tientsin	745,715	32,041	1,623,693	68,837
Lungkow	81,731	1,815	27,333	1,007
Chefoo	69,865	2,649	89,731	4,221
Kiaochow	1,815,288	51,722	1,679,825	45,602
Chungking .....	.....	.....	.....	.....
Ichang .....	.....	.....	400	41
Shasi	3,600	301	.....	.....
Changsha .....	.....	.....	133	12
Hankow	48,132	3,760	201,462	18,686
Kiukiang	1,733	152	.....	.....
Wuhu	3,067	228	533	30
Nanking	667	55	400	28
Chinkiang	1,333	107	133	8
Shanghai	2,508,604	210,816	1,996,217	212,688
Hangchow	1,467	124	1,067	96
Ningpo	400	19	267	14
Wenchow	800	151	.....	.....
Foochow	11,867	920	3,333	304
Amoy	268,660	17,344	187,595	12,870
Swatow	4,000	259	2,133	44
Canton	67,465	3,660	205,995	9,096
Kowloon	4,800	124	39,999	1,042
Kewloon: Railway Traffic ..	11,333	293	3,067	80
Wuchow	7,866	180	.....	.....
Kiungchow	138,397	11,682	232,661	4,500
Pakhoi	533	12	533	20
Mengtsz	933	48	400	70
Tengyueh	2,533	26	1,867	188
Total net import	35,524,845	1,333,314	32,702,782	1,262,284

Data from G. O. Woodard, Trade Commissioner, Shanghai.

TABLE 93
NET IMPORT OF LEMONS INTO CHINA PORTS

Net import into	1927		1928	
	<i>1,000 lemons</i>	<i>dollars</i>	<i>1,000 lemons</i>	<i>dollars</i>
Aigun .....	.....	.....	.....	.....
Harbin District	20	538	5	147
Antung	1	34	1	27
Dairen	929	19,777	657	14,670
Newchwang	111	2,351	189	5,026
Chinwangtao	1	19	2	61
Tientsin	207	4,383	320	8,252
Chefoo	27	616	46	1,268
Kiaochoh	126	2,634	45	1,010
Changsha .....	.....	.....	.....	.....
Hankow	24	452	24	601
Kiukiang .....	.....	.....	.....	.....
Wuhu .....	.....	3	.....	13
Nanking .....	.....	.....	.....	.....
Shanghai	2,124	51,862	1,875	52,300
Amoy	5	99	12	342
Canton	20	554	37	872
Total net import	3,595	83,322	3,213	84,589

Data from G. O. Woodard, Trade Commissioner, Shanghai.

TABLE 94

NET IMPORT OF ORANGES IN BULK INTO CHINA PORTS

Net import into	1927		1928	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Antung .....	.....	.....	.....	.....
Dairen	1,333	106	1,333	500
Newchwang	5,199	497	933	86
Tientsin	134,633	11,032	142,498	13,394
Chefoo	2,399	189	6,398	489
Kiaochow	4,532	304	16,529	1,106
Chungking	800	79	7,865	309
Iehang	133	14	533	61
Shasi	133	19	1,733	171
Changsha	1,067	106	267	28
Hankow	5,065	507	21,061	2,034
Kiukiang	2,399	291	4,799	508
Wuhu	1,600	148	7,598	746
Nanking	400	34	1,066	110
Chinkiang	15,063	1,571	13,330	1,490
Shanghai	62,651	6,390	56,652	6,248
Soochow	1,066	102	400	40
Hangchow	2,000	192	.....	.....
Ningpo	3,466	356	1,733	185
Wenchow	400	38	.....	.....
Foochow	2,000	150	666	81
Amoy	133	11	.....	.....
Swatow	1,866	183	9,198	913
Canton	1,733	136	267	21
Lappa .....	.....	.....	1,200	123
Samshiu	1,333	94	267	32
Wuchow	28,660	2,489	12,397	975
Nanning .....	.....	.....	6,398	500
Kiungchow	667	66	667	48
Pakhoi	533	46	.....	.....
Mengtsz	14,796	1,494	14,796	1,852
Tengyueh	1,466	141	933	132
Excess of re-export over import .....	.....	.....	331,517	32,182
			133	13
Total net import ..	297,526	26,785	331,384	32,169

Data from G. O. Woodard, Trade Commissioner, Shanghai.

TABLE 95

NET IMPORT OF FRUITS, TABLE AND PIE (CANNED GOODS) INTO CHINA PORTS

Net import into	1927		1928	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Aigun	7,598	1,180	4,932	648
Harbin District .....	.....	.....	.....	.....
Hunchun	21,195	1,865	37,724	3,962
Lungchingsun .....	.....	.....	533	94
Antung	10,931	1,134	24,527	1,751
Dairen	707,290	59,236	1,104,257	97,630
Newchwang	7,198	331	15,729	1,406
Chinwangtao	1,333	122	3,732	375
Tientsin	347,113	31,984	305,524	28,514
Lungkow	2,533	154	4,132	274
Chefoo .....	.....	.....	4,799	328
Kiaochow	73,315	5,837	77,980	6,939
Chungking	34,125	3,524	72,515	6,955
Wanhsien	400	41	7,865	720
Ichang	54,253	4,991	73,582	5,796
Shasi .....	.....	.....	1,200	66
Changsha	3,999	321	17,996	1,664
Yochow .....	.....	.....	1,200	124
Hankow	66,117	5,093	250,204	20,498
Kiukiang	3,732	319	12,663	1,254
Wuhu	22,928	2,294	14,130	969
Nanking	1,200	166	2,666	253
Chinkiang	4,266	399	4,132	409
Shanghai	1,484,029	130,966	1,577,072	128,410
Hangchow .....	.....	.....	.....	.....
Ningpo .....	.....	.....	667	31
Wenchow	3,999	388	7,065	640
Foochow	2,799	247	70,382	2,952
Amoy	761,809	32,978	920,703	37,686
Canton	5,199	606	8,398	679
Samshui	400	32	.....	.....
Wuchow	17,062	1,591	21,328	2,229
Kiungchow	14,396	1,267	156,228	13,544
Pakhoi	6,532	631	15,863	1,657
Lungchow .....	.....	.....	533	42
Mengtsz	91,710	8,802	161,426	15,232
Tengyueh	9,864	1,409	8,398	1,306
	3,767,325	297,908	4,990,085	385,037
Excess of re-export over import	11,064	1,003	7,598	736
Total net import..	3,756,261	296,905	4,982,487	384,301

Data from G. O. Woodard, Trade Commissioner, Shanghai.

TABLE 96

NET IMPORT OF CANNED GOODS NOT OTHERWISE RECORDED INTO CHINA PORTS

Net import into	1927		1928	
	pounds	dollars	pounds	dollars
Aigun	1,657	.....	1,306
Harbin District	26,958	.....	2,307
Hunchun	1,505	.....	2,911
Lungchingtsun	9,989	.....	11,967
Antung	7,839	.....	16,112
Dairen	206,276	.....	302,150
Newchwang	1,575	.....	4,148
Chinwangtao	912	.....	2,469
Tientsin	89,238	.....	107,941
Lungkow	73	.....	55
Chefoo	23,731	.....	22,149
Kiaochow	27,636	.....	24,197
Chungking	1,035	.....	1,534
Wanhsien	351	.....	1,172
Ichang	3,422	.....	4,353
Shasi	501	.....	620
Changsha	146
Yochow	4	.....	191
Hankow	5,191	.....	14,657
Kiukiang	1,165	.....	1,465
Wuhu	1,315	.....	1,205
Nanking	505	.....	218
Chinkiang	573	.....	503
Shanghai	295,838	.....	358,111
Soochow	39	.....	41
Hangchow	133	.....	1,825
Ningpo	602	.....	393
Wenchow	18	.....	116
Santuaio	49
Foochow	1,428	.....	2,610
Amoy	43,696	.....	40,389
Swatow	4,280	.....	3,091
Canton	30,161	.....	34,567
Kowloon	438	.....	1,005
Kowloon: Railway Traffic	3	.....	391
Lappa	3,665	.....	2,967
Kongmoon	520	.....	1,055
Samshui	121	.....	823
Wuchow	552	.....	72
Kiungchow	9,233	.....	10,551
Pakhoi	2,273	.....	527
Lungchow	271
Mengtsz	1,260	.....	1,129
Tengyueh	232	.....	120
Total net import	805,943	.....	983,879

Data from G. O. Woodard, Trade Commissioner, Shanghai.

TABLE 97

NET IMPORT OF CURRANTS AND RAISINS INTO CHINA PORTS

Net import into	1927		1928	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Aigun	6,533	1,183	3,867	609
Harbin District	238,527	29,304	87,598	9,428
Hunchun	7,466	1,159	4,666	613
Lungchingtsun	5,333	785	5,067	858
Antung	1,867	123	23,599	1,845
Dairen	903,577	74,096	1,215,970	80,595
Newchang	124,797	6,801	108,664	8,509
Chinwangtao	2,533	267	10,133	797
Tientsin	205,062	19,371	345,991	33,161
Lungkow	267	28	.....	.....
Chefoo	26,133	1,479	25,999	1,454
Kiaochow	40,266	3,854	120,664	7,057
Chungking	3,867	573	6,133	539
Wanhsien	267	12	933	63
Ichang	1,467	126	5,733	324
Shasi	933	61	57,998	3,743
Changsha	24,933	2,710	107,864	9,229
Yochow	1,600	160	1,867	293
Hankow	100,531	8,800	387,857	22,507
Kiukiang	76,665	8,214	155,596	11,629
Wuhu	57,732	4,940	55,732	3,609
Nanking	41,332	3,329	29,599	2,250
Chinkiang	28,933	2,669	63,865	3,389
Shanghai	1,354,099	107,514	2,733,932	145,043
Soochow	7,200	542	533	23
Hangchow	1,067	168	667	64
Ningpo	25,199	1,829	41,599	2,134
Wenchow	20,666	1,397	29,866	1,557
Santuo	133	12	667	96
Foochow	45,466	6,255	85,864	8,706
Amoy	39,732	3,076	60,798	4,334
Swatow	78,931	6,858	117,864	13,181
Canton	53,332	5,481	132,930	9,880
Kowloon	339,458	31,621	389,724	33,352
Kowloon: Railway Traffic	4,533	422	2,933	251
Lappa	82,398	7,249	163,063	13,098
Kongmoon	7,333	1,117	6,667	1,021
Samshui	10,933	1,520	11,466	1,037
Wuchow	48,265	6,403	85,331	11,816
Nanning	4,667	752	4,267	696
Kiungchow	8,533	751	9,200	988
Pakhoi	7,200	1,020	10,400	1,659
Lungechow	133	33	.....	.....
Mengtsz	35,066	3,128	35,732	3,837
Tengyueh	10,800	2,120	8,533	1,794
Total net import	4,085,765	359,312	6,757,431	457,068

Data from G. O. Woodard, Trade Commissioner, Shanghai.

TABLE 98

NET IMPORT OF FRUITS, FRESH, DRIED, OR PRESERVED, NOT OTHERWISE RECORDED
INTO CHINA PORTS

Net import into	1927		1928	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Aigun	800	165	1,866	294
Harbin District	81,979	6,203	229,543	13,936
Hunchun	10,931	645	12,130	956
Lungchingsun	78,247	7,132	73,715	6,962
Antung	246,738	9,662	406,965	15,704
Dairen	6,744,047	197,421	6,726,718	206,302
Newchwang	32,925	1,370	2,266	220
Chinwangtao	1,733	36	533	8
Tientsin	4,448,621	123,667	5,359,460	146,358
Lungkow .....	.....	.....	1,866	48
Chefoo .....	.....	.....	16,396	853
Kiachow	406,432	11,059	589,853	12,330
Chungking .....	.....	.....	.....	.....
Ichang	133	17	133	11
Shasi .....	.....	.....	3,066	67
Changsha	133	8	800	66
Yochow .....	.....	.....	.....	.....
Hankow	8,664	415	14,396	924
Kiukiang	400	33	1,466	174
Wuhu	267	37	533	17
Nanking .....	.....	.....	1,200	113
Chinkiang .....	.....	.....	133	6
Shanghai	1,634,658	88,590	3,173,473	108,877
Soochow .....	.....	.....	.....	.....
Hangchow	3,066	208	.....	.....
Ningpo .....	.....	.....	1,733	40
Wenchow	3,466	173	4,399	153
Santuaio	1,066	31	667	19
Foochow	2,211,980	35,559	1,354,994	21,763
Amoy	433,492	12,204	275,531	10,728
Swatow	1,025,610	43,357	1,180,905	54,867
Canton	3,619,362	111,990	3,561,909	114,101
Kowloon	9,597,333	168,163	11,744,396	219,261
Kowloon: Railway Traffic	301,924	7,610	262,734	7,764
Lappa	4,588,986	155,929	5,868,666	247,579
Kongmoon	1,100,525	39,738	1,156,777	43,576
Samshiu	386,037	17,707	462,951	18,682
Wuchow	570,524	25,124	674,898	39,096
Nanning	1,333	83	11,331	574
Kiungchow	372,574	15,686	437,891	19,690
Pakhoi	154,628	7,909	174,090	9,455
Lungchow	2,799	185	16,529	437
Mengtsz	39,590	1,739	93,177	4,182
Tengyueh	4,532	376	.....	.....
Total net import	38,115,535	1,090,231	43,900,089	1,326,193

Data from report of G. O. Woodard, Trade Commissioner, Shanghai.

TABLE 99

IMPORTS OF CANNED FRUITS INTO THE PHILIPPINE ISLANDS BY COUNTRIES
OF ORIGIN

Fruits	1926		1927		1928	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
<i>Pineapple</i>						
United States.....			81,426	7,917	63,261	6,400
Hawaii.....			124,870	9,481	119,414	10,783
China.....			6,499	352	1,410	81
Br. East Indies.....			341,227	19,531	527,690	31,885
Dt. East Indies.....			1,425	78		
Total.....			555,447	37,359	711,775	49,149
<i>All Other</i>						
United States.....	1,318,909	136,465	1,224,595	120,242	1,771,231	166,106
Hawaii.....	91,111	9,184			1,100	297
Great Britain.....	6,508	420	766	148		
Belgium.....	22	9			33	11
Belgium.....	22	9			33	11
France.....	541	65	88	16	470	32
Germany.....	1,254	194	299	48	132	21
Netherlands.....	11	2	29	4	18	2
Spain.....	10,626	2,060	6,767	1,264	11,152	2,026
Switzerland.....	1,335	209	31	3	858	107
China.....	169,107	15,628	106,964	8,903	124,454	10,631
Br. East Indies.....	349,426	15,114	5,042	233	3,676	206
Dt. East Indies.....	1,760	99				
Hongkong.....			290	13		
Japan.....	1,833	122	3,025	204	385	35
Australia.....	607	56	1,166	85	22	4
Total.....	1,953,050	179,627	1,349,062	131,163	1,913,531	179,478

Data from H. V. Rohrer, Assistant Trade Commissioner, Manila.

TABLE 100
IMPORTS OF FRESH FRUITS INTO THE PHILIPPINE ISLANDS BY COUNTRIES

Articles and countries of origin	1926		1927	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
<i>Apples</i>				
United States.....	5,141,895	215,628	5,424,164	217,965
Canada.....				
France.....				
China.....	101,858	4,637	250,549	8,444
Japan.....	11,136	362	8,987	190
Australia.....				
Total.....	5,254,889	220,627	5,683,700	226,599
<i>Lemons</i>				
United States.....	544,586	38,475	680,262	41,419
Italy.....				
Canada.....				
Spain.....			418	15
China.....			4,323	327
Australasia.....				
Total.....	544,586	38,475	685,003	41,761
<i>Grapes</i>				
United States.....	1,179,000	95,269	1,090,265	84,004
Australia.....			2,343	255
Total.....	1,179,000	95,269	1,092,608	84,259
<i>Oranges</i>				
United States.....	3,159,198	226,113	3,549,418	240,742
China.....	364,817	9,603	1,405,543	52,967
British East Indies.....	308	10	330	5
Japan.....	10,932	277	1,738	63
Australasia.....				
Total.....	3,535,255	236,003	4,957,029	293,777
<i>Pears</i>				
United States.....	48,972	3,788	73,161	5,546
Spain.....				
China.....	131,426	6,583	216,854	9,844
British East Indies.....				
Japan.....	913	35	114,710	4,544
Australasia.....				
Total.....	181,311	10,406	404,725	19,934
<i>All Other</i>				
United States.....	47,285	4,951	106,133	8,828
China.....	168,661	7,269	341,537	14,317
Spain.....				
Canada.....				
British East Indies.....	3,582	159	1,555	34
French East Indies.....	15,767	501		
Japan.....	957	55	1,155	20
Australasia.....				
Australia.....				
Total.....	236,252	12,935	450,380	23,199

Data from H. V. Rohrer, Assistant Trade Commissioner, Manila.

TABLE 101
IMPORTS AND EXPORTS OF FRUITS IN FRENCH INDO-CHINA

Fruits	1926		1927		1928	
	tons	dollars	tons	dollars	tons	dollars
<i>Imports</i>						
<i>Fresh fruits</i>						
Apples and pears.....	241	13,152	299	32,632	310	33,860
Oranges.....	74	17,136	97	22,680	86	20,104
Grapes.....					33	23,800
Chinese origin.....	4,029	219,804	5,205	283,920	6,767	377,340
All others.....	759	41,556	756	130,412	762	35,572
<i>Dried fruits</i>						
Raisins.....	306	122,384	262	142,876	340	185,576
Almonds and nuts.....	69	25,380	86	30,840	90	31,948
Prunes.....	56	18,416	68	22,352	53	15,484
Chinese origin.....	574	235,968	642	264,032	1,405	577,572
All others.....	736	78,524	723	268,876	891	162,520
Canned fruits.....	349	76,280	437	144,588	396	64,464
<i>Exports</i>						
Cocoanuts.....	2,100	26,728	93	1,188		
Mangoes and mangosteens	313	53,348	241	37,632	133	23,576
Bananas.....			42	2,288	84	45,688
Dried fruits.....	176	24,568	135	7,336	124	8,168
Candied fruits.....	666	145,316	1,042	52,636	968	29,692

TABLE 102
IMPORTS OF FRESH FRUITS INTO SIAM*

Imported from	Fiscal years ended March 31			
	1926-27		1927-28	
	Quantity in pounds	Value	Quantity in pounds	Value
Singapore.....	899,755	\$ 35,776	2,558,267	\$ 72,471
Hongkong.....	1,682,094	100,036	2,340,214	141,908
China.....	6,520,445	259,910	7,388,589	271,951
India.....	15,154	1,747	408,845	12,589
United Kingdom.....	25,800	3,148	2,778	496
British Malay States.....	153,850	3,758	60,787	2,159
United States.....	9,101	1,232	7,348	1,115
France.....	218	49		
Indo-China.....	154	22	3,274	176
Penang.....	748,069	46,834	376,120	24,883
Australia.....	3,598	577	600	97
Burma.....	7,280	372	12,262	392
Kohkong.....	5,732	210	8,796	247
Total.....	10,071,250	453,771	13,167,880	528,484

* Includes a small quantity of dried fruit.

From Trade Info. Bul. 610, U. S. Dept. Com.

Source; Annual Statement of the Foreign Trade and Navigation of the Kingdom of Siam.

TABLE 103
IMPORTS OF FRESH FRUITS—BRITISH MALAYA

Countries	1928		1927		1926	
	<i>tons</i>	<i>dollars</i>	<i>tons</i>	<i>dollars</i>	<i>tons</i>	<i>dollars</i>
United Kingdom.....	34	17,663	86	43,897	101	43,364
British North Borneo.....	4	308	6	439	18	1,196
Brunei.....					1	47
Sarawak.....	27	544	4	230	10	641
British India and Burma.....	218	22,857	775	62,539	142	17,850
Hongkong.....	1,145	101,556	956	100,594	451	40,493
Australia.....	879	247,327	846	254,740	648	174,888
Other British possessions.....		5				
France.....	1	579	26	11,875	30	10,820
Netherlands.....			1	655		
Spain.....	10	5,937	13	6,300	14	3,812
Arabia.....		3				
China.....	4,364	414,156	6,547	622,868	4,751	495,487
Egypt.....		388	8	1,163	3	784
French Indo-China.....	15	1,270	32	2,634	63	7,412
French India.....	49	5,958	110	13,707	50	4,839
Japan.....	328	36,779	363	56,247	22	3,665
Bali and Lombok.....	121	12,435	94	12,663	79	5,646
Banka and Billiton.....			2	226	2	237
Borneo.....	169	14,136	77	4,484	120	5,223
Celebes and Moluccas.....						11
Java.....	868	70,987	1,280	131,051	1,370	115,453
Sumatra.....	380	26,016	241	12,363	461	17,942
Other Dutch islands.....				10		
Philippine and Sulu Arch.....	33	5,420	12	1,689	66	10,436
Siam.....	322	18,449	206	15,309	262	19,281
United States of America.....	973	240,722	1,037	245,213	574	118,028
Other foreign countries.....						3
Total.....	9,940	1,243,495	12,722	1,600,896	9,238	1,097,558

Data: British Malaya, Return of Foreign Imports and Exports, 1928.

TABLE 104
IMPORTS OF DRIED AND PRESERVED FRUITS—BRITISH MALAYA

Countries	1928		1927		1926	
	<i>tons</i>	<i>dollars</i>	<i>tons</i>	<i>dollars</i>	<i>tons</i>	<i>dollars</i>
United Kingdom.....	23	16,051	29	16,253	25	12,489
British North Borneo.....			4	141		89
Brunei.....						74
Sarawak.....		33	1	139	7	1,378
British India and Burma.....	3,149	288,618	7,697	756,423	7,000	738,822
Ceylon.....		8		6		7
Hongkong.....	3,157	693,534	3,252	760,905	2,042	455,682
Australia.....	10	3,520	9	3,104	11	4,203
Union of South Africa.....				11		
Other British Possessions.....	2,348	166,997	453	36,627	4	558
France.....	4	1,296	6	3,788	11	4,496
Germany.....		156				
Italy.....			1	207	14	3,508
Netherlands.....		70		111		54
Spain.....		103		82	1	397
Switzerland.....				62		
Other European Countries.....	5	1,335	2	503	5	1,015
Arabia.....	289	29,949	39	3,869	10	1,254
China.....	1,527	248,157	1,829	300,910	2,741	538,429
Egypt.....	1	217	7	2,081	4	1,357
French Indo-China.....	1	43				15
French India.....	8	2,833	14	1,833	4	328
Japan.....	3	366	13	2,365	17	3,178
Bali and Lombok.....	2	149		23	2	131
Banka and Billiton.....		19		2	1	146
Borneo.....		14	2	243		78
Celebes and Moluccas.....	1	63		40		
Java.....	421	42,736	355	41,718	264	35,035
Sumatra.....	10	714	9	969	8	634
Other Dutch Islands.....				14		28
Philippine and Sulu Arch.....		32		51		
Siam.....	48	6,511	44	8,970	53	12,855
United States of America.....	202	62,876	232	69,258	59	22,807
Other Foreign Countries.....	1,406	124,645		490	43	4,184
Total.....	12,615	1,691,045	13,998	2,011,198	12,326	1,843,231

Data; British Malaya, Return of Foreign Imports and Exports, 1928.

TABLE 105

IMPORTS OF OTHER SORTS OF CANNED FRUITS—BRITISH MALAYA

Countries	1928		1927		1926	
	<i>tons</i>	<i>dollars</i>	<i>tons</i>	<i>dollars</i>	<i>tons</i>	<i>dollars</i>
United Kingdom.....	10	5,915	15	8,686	19	11,096
Sarawak.....		5		12		12
British India and Burma.....				71		349
Ceylon.....		6		63		
Hongkong.....	587	94,830	804	143,171	548	112,568
Canada.....		51				
Australia.....	7	1,912	9	3,663	17	5,934
Union of South Africa.....		9				
Other British Possessions.....				3		27
Belgium.....		172				
France.....	2	1,794	5	3,169	5	2,264
Germany.....					1	379
Italy.....	1	345		26	1	654
Netherlands.....		29		34	1	315
Switzerland.....		128		8		
China.....	900	119,881	1,228	173,266	1,886	291,907
French Indo-China.....				82		
Japan.....	1	270	1	238	5	1,608
Other European Countries.....	4	1,137				
Java.....						72
Sumatra.....		14		59		124
Siam.....	1	208			22	3,007
United States.....	355	106,623	393	124,844	461	153,609
Total.....	1,868	333,329	2,455	457,395	2,966	583,925

Data from British Malaya, Return of Foreign Imports and Exports, 1928.

TABLE 106
EXPORTS OF PINEAPPLES—BRITISH MALAYA

Countries	1928		1927		1926	
	<i>tons</i>	<i>dollars</i>	<i>tons</i>	<i>dollars</i>	<i>tons</i>	<i>dollars</i>
United Kingdom.....	33,453	3,440,427	30,952	3,632,573	31,100	3,335,860
British North Borneo.....	4	388	2	272	.....	75
Brunei.....	.....	35	.....	42	.....	20
Sarawak.....	5	773	1	107	10	1,112
British India and Burma.....	331	36,577	281	35,434	249	30,342
Ceylon.....	.....	.....	.....	4	.....	.....
Hongkong.....	261	26,268	63	7,224	171	17,197
Canada.....	5,283	544,449	3,248	374,731	4,146	421,673
Australia.....	348	33,893	589	68,464	395	45,543
New Zealand.....	1,652	168,416	1,768	206,576	1,370	151,691
Other British Possessions.....	282	38,277	280	42,145	146	20,942
Belgium.....	178	19,597	56	7,605	67	7,396
Denmark.....	34	3,973	50	6,795	102	12,050
France.....	905	101,462	410	51,169	709	85,503
Germany.....	2	202	6	785	18	2,158
Italy.....	34	3,740	18	2,254	43	4,711
Netherlands.....	439	49,010	339	47,478	198	24,571
Norway.....	.....	.....	.....	5	.....	.....
Spain.....	.....	.....	.....	43	.....	.....
Sweden.....	36	3,777	2	235	.....	.....
Other European Countries.....	2	253	6	844	.....	.....
Arabia.....	97	11,962	71	10,204	10	1,326
China.....	744	75,589	457	52,829	401	40,120
Egypt.....	384	54,603	314	46,902	293	41,551
French Indo-China.....	4	393	.....	.....	.....	40
French India.....	.....	.....	.....	.....	.....	47
Japan.....	3	310	3	425	2	192
Bali and Lombok.....	.....	.....	.....	.....	.....	12
Banka and Billiton.....	.....	50	.....	44	.....	6
Borneo.....	4	436	9	1,200	2	343
Celebes and Moluccas.....	7	585	.....	51	.....	28
Java.....	57	5,026	1	194	2	259
Sumatra.....	78	8,031	124	15,591	222	26,537
Other Dutch Islands.....	35	3,761	22	2,607	25	2,942
Philippine and Sulu Arch.....	213	21,326	207	24,883	135	16,996
Siam.....	390	39,959	50	6,817	247	23,461
United States.....	1,096	101,425	778	78,446	557	56,014
Other Foreign Countries.....	40	5,210	27	4,203	14	1,769
Total.....	46,401	4,800,183	40,134	4,729,181	40,634	4,372,487

Source of data: From British Malaya, Return of Foreign Imports and Exports, 1928.

TABLE 107
IMPORTS OF FRESH FRUIT INTO JAVA AND MADURA

Country of origin	1926		1927		1928	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
<i>Apples</i>						
Holland.....	26,400	3,600	28,600	3,200	37,400	4,400
Japan.....	28,600	1,600	24,200	1,600		
Australia.....	1,029,600	64,000	1,056,000	63,200	1,309,000	83,200
U. S. A. Atlantic Coast.....	105,600	6,800	92,400	5,600	94,600	6,800
U. S. A. Pacific Coast.....	176,000	10,400	389,400	24,800	629,200	36,000
Other Countries.....					6,600	400
Total.....	1,366,200	86,400	1,590,600	98,400	2,076,800	130,800
<i>Grapes</i>						
Holland.....					4,400	1,200
Spain.....	33,000	4,400	4,400	800	6,600	1,200
Australia.....	200,200	22,000	310,200	36,400	330,000	35,200
U. S. A. Atlantic Coast.....	19,800	2,400	33,000	4,000	28,600	2,800
U. S. A. Pacific Coast.....	19,800	2,000	96,800	10,000	237,600	20,000
Other Countries.....	13,200	1,200	2,200	400	2,200	
Total.....	286,000	32,000	446,600	51,600	609,400	60,400
<i>Oranges</i>						
British Possessions.....			11,000	800		
Egypt.....			11,000	800	13,200	800
Arabia.....					26,400	1,600
Singapore.....			13,200	1,200		
Australia.....	85,800	6,000	68,200	4,400	112,200	7,600
U. S. A. Atlantic Coast.....			22,000	1,600	22,000	2,400
U. S. A. Pacific Coast.....			59,400	4,400	44,000	4,400
Other Countries.....	39,600	2,800	6,600	400	6,600	400
Total.....	125,400	8,800	191,400	13,600	224,400	17,200

Data from E. W. Groth, Consul, Surabaya, Java.

TABLE 108
IMPORTS OF CANNED FRUITS INTO JAVA AND MADURA

Country of origin	1926		1927		1928	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
Holland.....	46,200	6,400	55,000	8,400	74,800	10,800
Great Britain.....			6,600	1,200	4,400	400
France.....	68,200	7,200	74,800	7,600	48,400	5,600
Italy.....			8,800	800	17,600	1,600
Switzerland.....	85,800	10,400	74,800	8,800	30,800	3,600
British India.....						
Singapore.....			13,200	1,200	176,000	12,400
Hongkong.....	90,200	8,400	101,200	7,200	96,800	8,000
China.....	261,800	22,400	321,200	24,000	266,200	21,200
Philippines.....			6,600	400		
Australia.....	110,000	9,200	17,600	1,200		
Polynesia.....			6,600	400		
U.S.A. Atlantic Coast.....	257,400	23,200	59,400	5,600	105,600	7,200
U.S.A. Pacific Coast.....	2,263,800	201,600	1,592,800	146,000	1,863,400	149,200
Other countries.....	30,800	2,800	6,600	400	8,800	2,400
Total.....	3,214,200	291,600	2,345,200	213,200	2,692,800	222,400

Data from E. W. Groth, Consul, Surabaya, Java.

TABLE 109
IMPORTS OF DRIED FRUIT INTO JAVA AND MADURA

Country of origin	1926		1927		1928	
	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>	<i>pounds</i>	<i>dollars</i>
<i>Dates</i>						
Arabia.....	61,600	2,000	19,800	800		
British India.....	323,400	10,400	547,800	18,400	332,200	10,800
Singapore.....	1,592,800	54,000	2,050,400	68,400	2,534,400	83,600
China.....	55,000	2,000				
Other Countries.....					15,400	800
Total.....	2,032,800	68,400	2,618,000	87,600	2,882,000	95,200
<i>All Others</i>						
Holland.....	79,200	11,200	167,200	42,000	103,400	20,400
Great Britain.....			4,400	800		
France.....	8,800	2,000	8,800	2,400	4,400	400
Italy.....			2,200	400		
Egypt.....	17,600	1,600	26,400	2,400	8,800	1,200
British India.....	70,400	4,800	123,200	9,600	66,000	5,200
Singapore.....	121,000	9,600	176,000	14,400	217,800	14,800
Hongkong.....	44,000	4,800	39,600	4,000	33,000	3,600
Formosa.....			11,000	1,600		
China.....	211,200	24,000	255,200	28,800	292,600	32,400
Australia.....	268,400	27,200	277,200	28,000	330,000	32,000
U. S. A. Atlantic Coast.....	92,400	10,400	4,400	400	63,800	5,200
U. S. A. Pacific Coast.....	756,800	80,800	688,600	69,600	668,800	60,400
Other Countries.....	11,000	800	8,800	1,200	6,600	1,600
Total.....	1,680,800	177,200	1,793,000	205,600	1,795,200	177,200

Data from E. W. Groth, Consul, Surabaya, Java.

TABLE 110

VALUE OF IMPORTS OF PRINCIPAL FOODSTUFFS INTO THE NETHERLAND EAST INDIES

Commodity	1926			1927		
	Java and Madura	Outer possessions	Total	Java and Madura	Outer possessions	Total
Butter, natural.....	\$2,232,976	\$ 724,472	\$ 2,957,448	\$1,973,982	\$ 674,371	\$ 2,648,353
Margarine.....	87,786	28,473	116,259	99,651	34,253	133,904
Vegetables, dried, canned, pickled, etc.....	1,142,262	1,115,298	2,257,560	1,165,475	1,308,563	2,474,038
Fish, canned.....	727,333	931,172	1,658,505	931,669	1,014,550	1,946,219
Fruit, fresh, dried, and preserved.....	838,512	819,822	1,658,334	845,507	760,116	1,605,623
Milk, canned.....	1,342,137	1,764,261	3,106,398	1,272,665	2,076,562	3,349,227
Total.....	\$6,371,006	\$5,383,498	\$11,754,504	\$6,288,949	\$5,868,415	\$12,157,364

From Trade Info. Bul. 620, U. S. Dept. Com.

Source; Jaaroverzicht van den in—en Uitvoer van Nederlandsch Indie.

TABLE 111

IMPORTS INTO BURMA OF CANNED AND BOTTLED FRUITS

From	1926-27		1927-28	
	Quantity cwt.	Value	Quantity cwt.	Value
United Kingdom	256	\$648	344	\$9,223
Straits Settlements	1,240	12,632	2,277	20,684
Hongkong	1,830	25,607	2,259	31,638
Victoria	128	1,967	40	604
Tasmania	99	1,250	92	1,123
New South Wales	43	607	19	250
Other British Possessions ....	.....	.....	20	225
Germany .....	.....	.....	5	415
Netherlands	21	452	41	826
France	48	1,953	39	1,789
China	173	2,837	245	3,692
Muscat .....	.....	.....	114	554
United States of America	2,433	45,469	2,389	43,525
Other countries	4	155	4	129
Total	6,275	\$93,577	7,888	\$114,677

Data from H. H. Dick, Consul, Rangoon, India.

TABLE 112

IMPORTS OF CANNED OR BOTTLED FRUITS INTO BRITISH INDIA

Countries of Origin	1924-25 <i>dollars</i>	1925-26 <i>dollars</i>	1926-27 <i>dollars</i>	1927-28 <i>dollars</i>
United Kingdom	43,970	45,761	30,460	47,204
Straits Settlements	36,593	24,784	31,794	76,652
Hongkong	33,479	35,303	33,454	37,064
Australia	15,958	35,962	31,836	23,593
France	6,212	8,577	11,638	11,093
China	3,526	3,537	4,591	6,848
United States of America	181,269	219,815	200,385	248,116
Other countries	10,684	6,216	12,970	12,161
Share of Bengal	69,430	98,287	70,674	97,952
Share of Bombay	61,695	84,289	85,779	141,387
Share of Sind	46,789	60,025	42,902	61,356
Share of Madras	36,836	38,203	55,601	44,173
Share of Burma	116,941	99,151	102,172	117,863
Total	331,691	379,955	357,128	462,731

Data from report of Robert C. Cockburn, Assistant Trade Commissioner, Calcutta, India.